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Waterways Experiment Station

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by Charles E. Long

Prepared for Headquarters, U.S. Army Corps of Engineers

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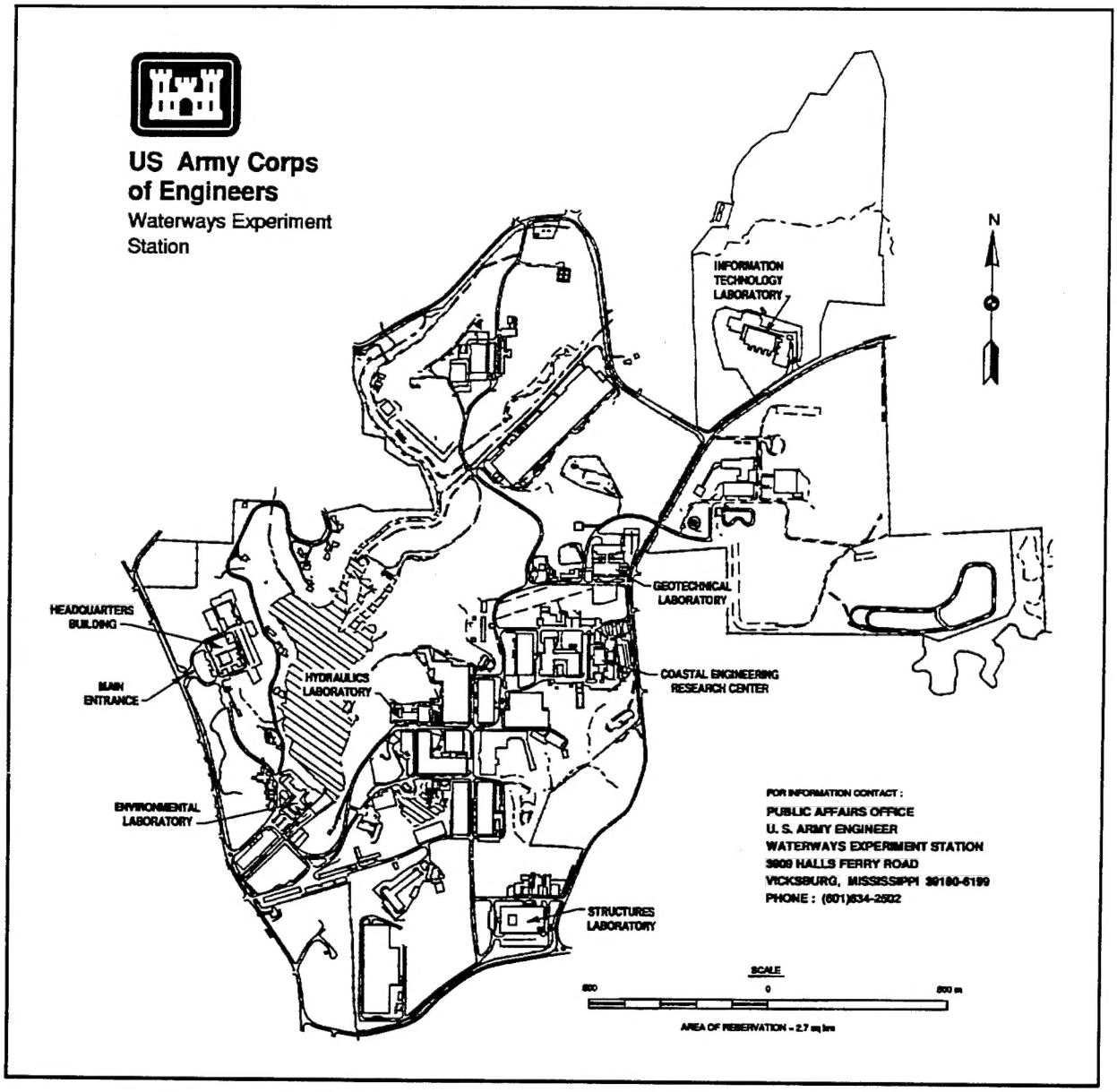

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Contents

Preface

This report indexes parameters of and describes means of access to a series of wind wave frequency-direction spectral observations made with a 16-element, high-resolution directional wave gauge at the Field Research Facility (FRF) of the U.S. Army Engineer Waterways Experiment Station (WES). The work was motivated by a paucity of observations of directionally distributed wave energy, which has hindered understanding and modeling of the nearshore processes that affect coastal engineering projects. This effort was authorized by Headquarters, U.S. Army Corps of Engineers (HQUSACE), under Civil Works Coastal Navigation Hydrodynamics Program Research Work Unit 32484, "Directionality of Waves in Shallow Water." Funds were provided through the Coastal Engineering Research Center (CERC), WES, under the program management of Ms. Carolyn M. Holmes, CERC. Messrs. John H. Lockhart, Jr., Charles Chesnutt, and Barry W. Holliday were HQUSACE Technical Monitors.

This summary report was prepared by Dr. Charles E. Long, under the direct supervision of Mr. William A. Birkemeier, Chief, FRF, and Mr. Thomas W. Richardson, Chief, Engineering Development Division, CERC. The work was performed under the general supervision of Dr. James R. Houston and Mr. Charles C. Calhoun, Jr., Director and Assistant Director, CERC, respectively.

The directional wave gauge and its data processing software were designed by Dr. Joan M. Oltman-Shay while at Oregon State University working through an Intergovernmental Personnel Agreement. The directional wave gauge was physically maintained with diver coordination by Messrs. Michael W. Leffler and C. Ray Townsend III, FRF, and logistical support by Mr. Brian L. Scarborough, FRF. Gauge calibration was maintained by Messrs. Kent K. Hathaway and Paul R. Hodges, FRF. Acquisition, monitoring, and storage of raw data were done by Mr. Clifford F. Baron, FRF.

At the time of publication of this report, Director of WES was Dr. Robert W. Whalin. Commander was COL Bruce K. Howard, EN.

1 Introduction

Wind waves are among the dominant forcing mechanisms in all coastal processes. Estimation of wave forces for engineering design requires knowledge of sea state, which is described, at a minimum, by an amplitude, a frequency, and a direction for each component of a wave field. Historically, there have been many observations of wave amplitude and frequency, but very few detailed observations of wave direction, due primarily to additional technical requirements in making such measurements. This represents a distinct and very important void in the knowledge required for comprehensive engineering design.

To begin to alleviate this dearth of knowledge, the Field Research Facility (FRF) of the U.S. Army Engineer Waterways Experiment Station, installed a high-resolution, directional wave gauge for long-term observations of the nearshore incident directional wave climate at its site near Duck, NC (Figure 1). The original gauge, consisting of an alongshore linear array of nine pressure gauges, was installed in September 1986. In September 1990, an additional six gauges with a cross-shore alignment were incorporated, making a 15-element, two-dimensional spatial array for estimating wave energy propagating in all directions.

Data thus obtained, which take the form of wave frequency-direction spectra, are intended for use by the broadest possible group of researchers and application engineers, and have been archived in a simple database. This report simplifies data dissemination by indexing and describing means of access to the set of observations collected from July 1994 to August 1995, part of the eighth and all of the ninth year of deployment. This period includes the dates of the DUCK94 experiment, a large-scale, interdisciplinary nearshore processes investigation (for a brief summary, see Long and Sallenger (1995)). Indexes for preceding years have been reported by Long (1991a, 1991b), Long and Smith (1993, 1994), Long and Atmadja (1994), Long and Pemberton (1994), and Long and Roughton (1994, 1995).

The main text of this document describes and clarifies the substantial information contained in the appendixes. Brief overviews are given of the measurement site, instrumentation, data collection, and method of directional spectral estimation. These subjects are described in greater detail in other publications, to which the reader is referred. Following the overviews is a description of the archived frequency-direction spectra and some characterizing bulk parameters that can be derived from them. Appendix A is a listing of these characterizing parameters and is intended to be used as a catalog of the set of spectra. Appendix B contains

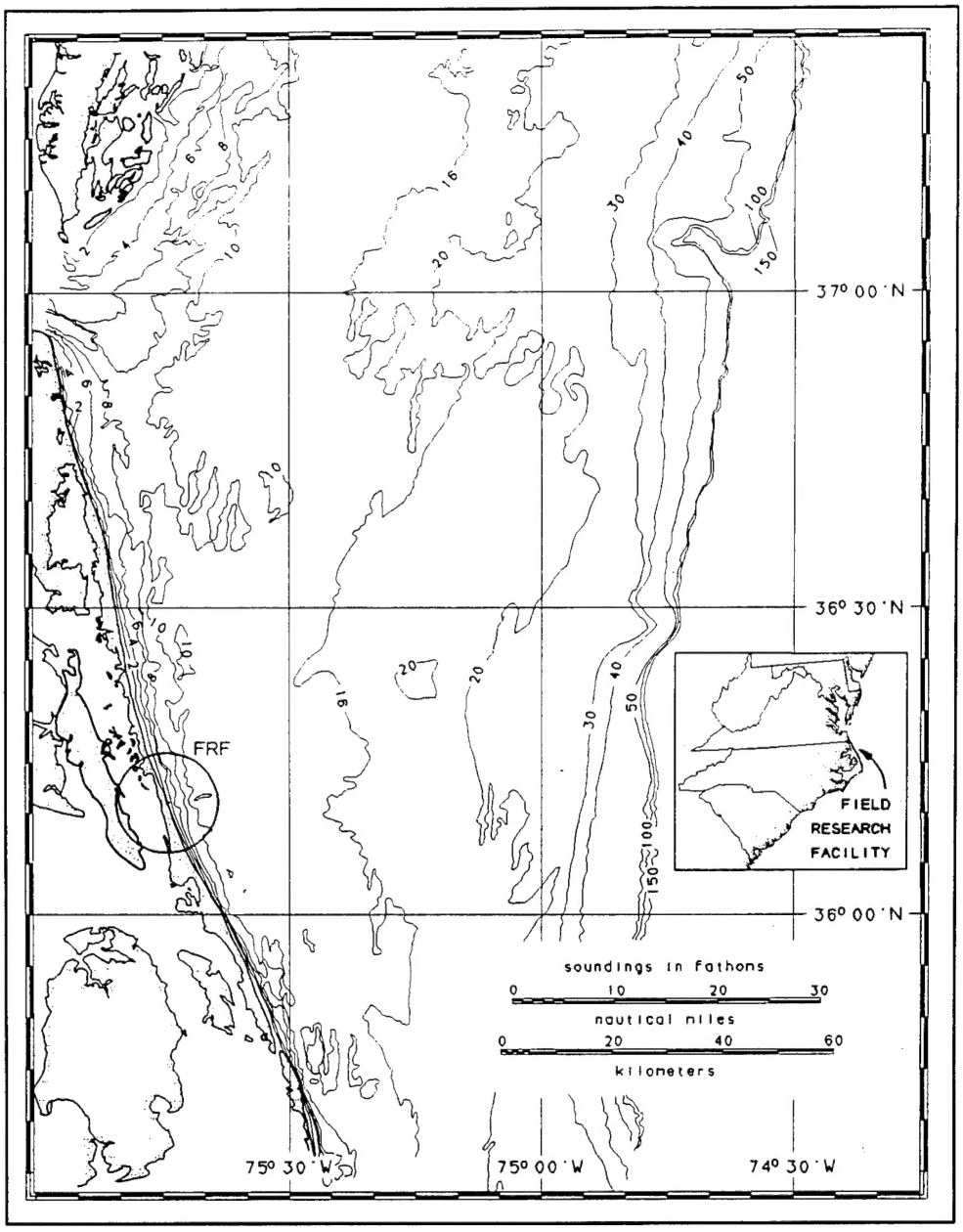

Figure 1. Location and offshore bathymetry of the FRF

graphs of time series of some of these parameters as a pictorial augmentation of the information in Appendix A. Appendix C illustrates a FORTRAN computer program that can be used to read archived data, of which a sample listing is given in Appendix D.

2 Field Research Facility

As shown in Figure 1, the FRF is located on the barrier island chain of coastal North Carolina. A detailed description of the layout, function, and capabilities of the FRF is given by Birkemeier et al. (1985). Of particular relevance to directional wave studies are the wave-steering bathymetry and wave-generating winds.

Bathymetry

The coastline in the vicinity of the FRF is nearly straight for several tens of kilometers north and south (Figure 1). It is oriented such that a shore-normal line (directed seaward) is very nearly 70 deg from true north. Waves and onshore winds can approach this site along an easterly 180-deg arc from 340 to 160 deg true. The adjacent continental shelf is wide, relatively shallow, and of somewhat complex bathymetry. The direction of nearest approach of the 100-m (328-ft) isobath, which indicates the shelf break, is 10 to 15 deg south of east. On this azimuth, the shelf break is about 80 km (43 n.m.) distant. A typical bottom slope for the shelf is 0.001, but this is interrupted by numerous features of 1- to 10-km (0.5- to 5.4-n.m.) horizontal scales and 10-m (33-ft) vertical scales scattered irregularly across the shelf.

Within a few kilometers of the FRF, the offshore bathymetry is more regular, with isobaths nearly shore-parallel and a bottom slope of about 0.002 (Figure 2). Some irregularities exist. Within about 300 m (984 ft) of the shore, there exists a complex and mobile bar system (Birkemeier 1984) that is strongly influenced by nearshore waves and currents. These processes have also created some irregular bathymetry in the vicinity of the 600-m-long (1,970-ft-long) FRF research pier (Miller, Birkemeier, and DeWall 1983).

Wave-Generating Winds

The site is subject to a variety of climates, which gives rise to a diverse set of directional wave conditions. Primary sources of high-energy waves are winds associated with hurricanes and frontal passages. Though no hurricanes passed directly over the FRF during the period covered by this report, several passed near enough that significant wave energy could be measured at the FRF. Notable among these were Hurricane Gordon, 16-19 November 1994, and Hurricane

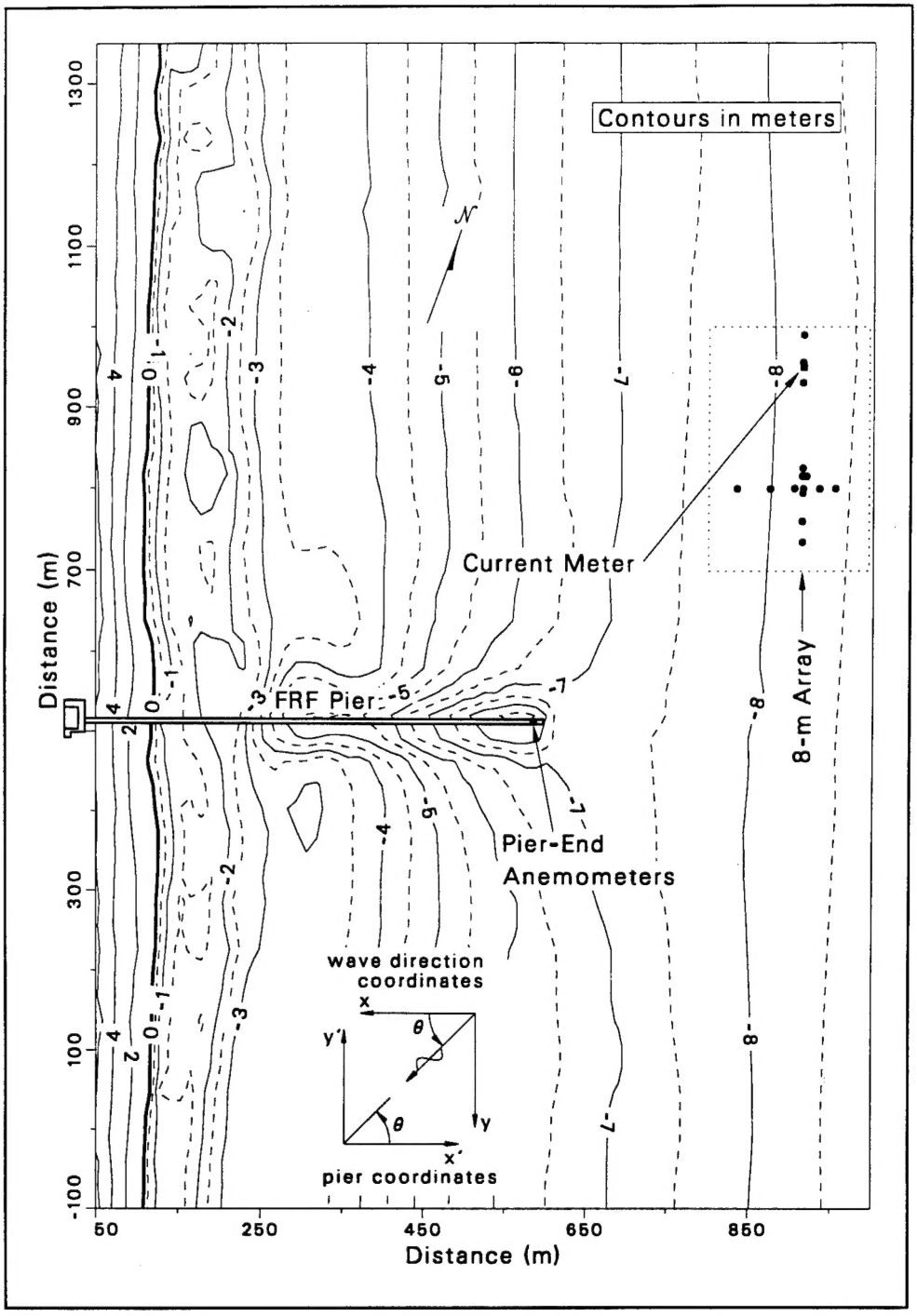

Figure 2. FRF nearshore bathymetry and coordinate system

Felix, 15-20 August 1995. Low-pressure weather fronts, of which several crossed the FRF site during this reporting period, were typically oriented northeast-southwest with strong wave-generating winds coming from the northeast.

For additional information, the National Oceanic and Atmospheric Administration daily weather maps (U.S. Department of Commerce 1994, 1995) contain large-scale depictions of weather systems passing the FRF site during this

collection period. Detailed, quantitative descriptions of the climate at the FRF, as determined from its arsenal of instrumentation, are given in a series of annual reports, of which those by Leffler et al. (1995a, 1995b) are examples.

3 Instrumentation

The primary instrument in this study is a high-resolution directional wave gauge. It consists of two parts. The first is a spatial array of sensors that sample sea-surface displacement at several points in (horizontal) space. The second, described in the following section on data processing, is the mathematical treatment of these data to obtain estimates of wave directionality.

The FRF array consists of 15 pressure gauges mounted approximately 0.5 m (1.6 ft) off the bottom in the vicinity of the 8-m (26-ft) isobath about 900 m (2,953 ft) offshore and to the north of the research pier (Figure 2). Its location satisfies three constraints. First, it is generally outside the surf zone so that linear wave theory is applicable in data processing. Second, it is in water shallow enough that signals from 3-sec waves, the shortest periods of interest here, are detectable above background noise at the bottom-mounted gauges. Third, it is located away from the irregular isobaths around the pier and in the nearshore bar system, which helps minimize bathymetrically induced inhomogeneities in the wave field.

Spacing between gauges in the array appears irregular in Figure 2 but, for the most part, corresponds to the array-design criterion posed by Davis and Regier (1977) that every gauge pair has a unique separation. Figure 3 is an enlarged view of the array layout and shows gauge spacing as well as the gauge naming scheme. A sixteenth pressure gauge (labeled T) in Figure 3 was part of a low-resolution directional wave gauge that also included the current meter indicated in Figure 2. Prior to 16 November 1994, data from gauge T were included in error checking procedures, and were available as backup data in the event of failure of certain other gauges, but were not used as part of the high-resolution array during this collection period. Gauge T and the current meter were removed on 16 November 1994. Thereafter, no further information was obtained from the site labeled T in Figure 3.

The array geometry encompasses considerable ranges in both sizes and numbers of gauge separations. Minimum gauge spacing is 5 m (16.4 ft) in both the alongshore and cross-shore directions. Maximum spacing is 255 m (837 ft) in the alongshore direction and 120 m (394 ft) in the cross-shore direction. Intermediate gauge spacings are in multiples of 5 m (16.4 ft). With 15 gauges, there are 105 possible unique spacings. In the FRF array, 12 redundant spacings are intentionally left for ancillary examination of spacial homogeneity of the wave field, so that 93 unique spacings remain.

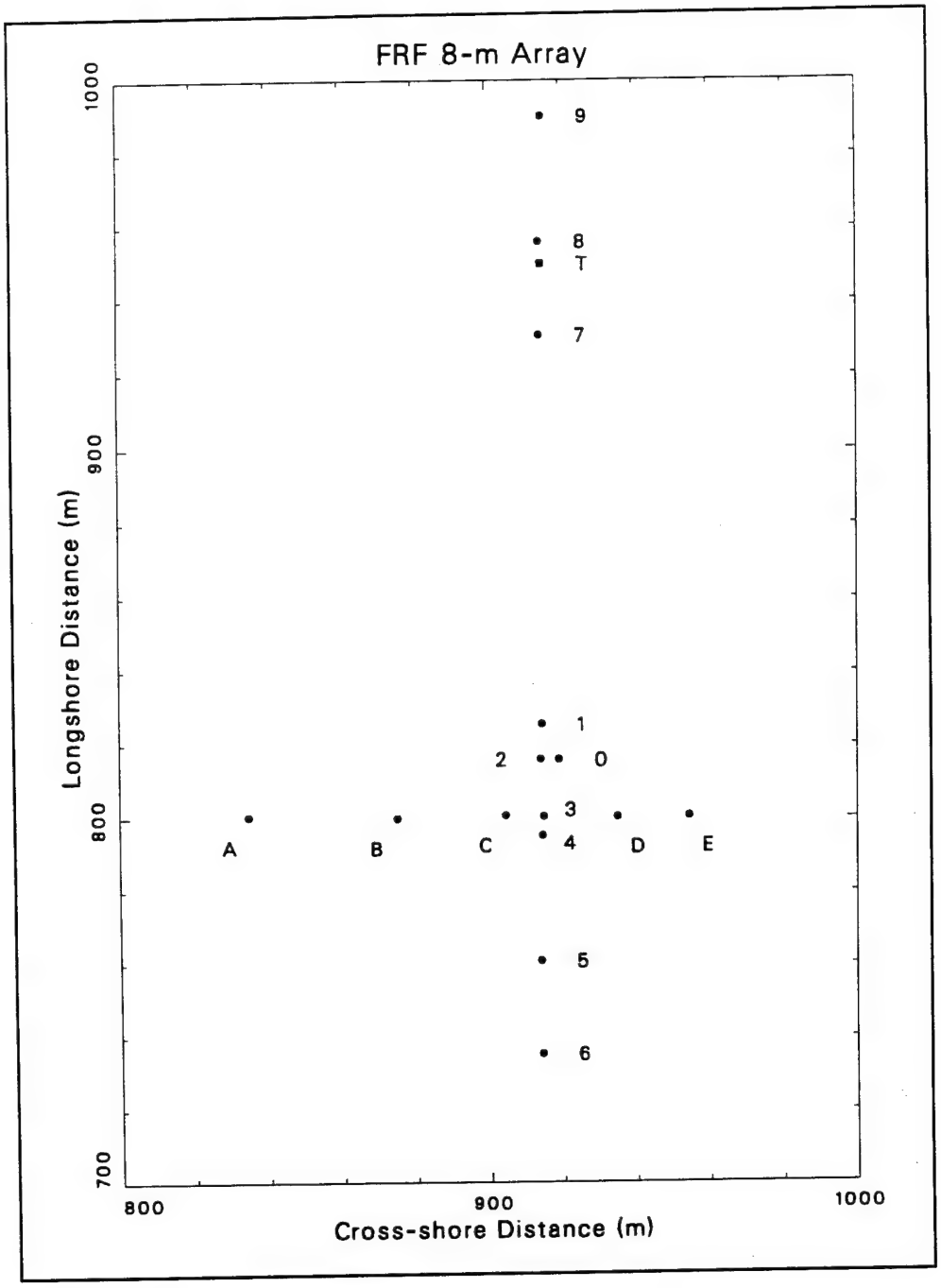

Figure 3. Spacing and numbering of linear array gauges

With the exception of gauge C prior to 11 May 1995, each pressure gauge is a Senso-Metric Model SP973(C), in which a piezo-electric strain gauge detects displacement of a pressure-sensitive diaphragm referenced to an evacuated cavity. Site calibrations indicate an accuracy of the pressure equivalent of ±0.006 m (±0.02 ft) of water for wave-induced fluctuations about a static water column height of 8 m (26 ft). Prior to 11 May 1995, gauge C was a Paroscientific Model 245AT resonating quartz absolute pressure transducer. The manufacturer's stated

accuracy of this gauge is the pressure equivalent of ±0.003 m (±0.01 ft) of water, which is about twice as accurate as the Senso-Metric gauges.

Voltage analogs of pressure signals are hard-wired through 10-Hz, fourth-order, Butterworth filters (primarily to eliminate 60-Hz noise) to an analog-to-digital signal converter, and then to a Digital Equipment Corporation VAXstation 4000 computer for data acquisition. Discretization of the full-scale signal to 11-bit binary form results in a digitization step of the equivalent of 0.007 m (0.023 ft) of water, which is nearly the same as the accuracy of the Senso-Metric gauges.

4 Data Collection

Signals from each of the pressure gauges were sampled at 2 Hz and stored digitally as records of 4,096 points (34 min 8 sec). A collection consisted of four such records, or 16,384 points (2 hr 16 min 32 sec) for each gauge. This procedure resulted in a total of 245,760 data points to produce one frequency-direction spectrum. Collections occurred eight times daily with starting times 0100, 0400, 0700, 1000, 1300, 1600, 1900, and 2200 hr Eastern Standard Time (EST). With this sampling pattern, the maximum number of collections is 2,920 in a 365-day year. Some collections are missed, however, because of necessary maintenance and repairs to the directional array and the data collection system.

During the 15-month period covered by this report, a total of 3,581 frequency-direction spectra (about 98 percent of the maximum possible) were obtained. A list of data collection start times for these observations is given in Appendix A. Appendix B contains time-series plots of spectral parameters with available wind and current observations as auxiliary environmental variables. Locations of reference anemometers and the current meter are shown in Figure 2.

5 Data Processing

Conversion of measured time series to estimates of frequency-direction spectra requires products of auto- and cross-spectral estimates from the array gauge data. For final results to be accurate, raw input data must be of exceptionally high quality so that spiky or drifty data from one gauge do not contaminate all results. Hence, the procedure for data processing is to check raw data for errors before estimating frequency-direction spectra. Some bulk parameters can then be computed to characterize results.

Error Checking

Because multiple gauges were deployed in what was assumed to be a uniform sea, certain statistical properties of raw data from each of the set of gauges should be identical. One such property is the frequency spectrum $S(f)$ (where f is frequency)[1] of raw (not surface-corrected) pressure signals. Under the ideal circumstances of constant water depth, uniform gauge elevation from the bottom, and no statistical noise, frequency spectra from all gauges are identical in every detail. Though these circumstances are not met exactly in the FRF system, they are approximated sufficiently closely that an intercomparison of the frequency spectra from the array of gauges is an excellent method for identifying erroneous data records.

A convenient way to effect such an intercomparison is to overplot frequency spectra from all the gauges on a single graph. Wind wave signals attenuate with depth so that, in accordance with linearized wave theory, very little direct wind wave energy is expected in the frequency range from about 0.4 Hz to the sampling Nyquist frequency (1.0 Hz for normal FRF sampling). Spectra in this frequency band should primarily indicate system noise, which should be about the same for all gauges of like kind, and consistent in time for all gauges. Excessively spiky data from one or more gauges appear as increased noise levels relative to data from normally functioning gauges. Strong low-frequency drifts in data from one gauge appear either as deviations in the low-frequency part of the spectrum, or as varying mean values from segment to segment through a data record. In the pass band of wind wave frequencies for which directional estimates are computed (0.04 to 0.32 Hz for these data), one expects the frequency spectra to be nearly

[1] For convenience, symbols and abbreviations are listed in the notation (Appendix E).

identical. A malfunctioning gauge is clearly identifiable in this type of intercomparison.

Figure 4 is an example of one set of overplotted frequency spectra. Semilogarithmic coordinates have been used to emphasize the behavior of the low-energy, high-frequency spectral tails. All pressure gauge signals have been converted to equivalent heights of a static water column for convenience in interpretation. As can be seen in Figure 4, spectra in the wind wave frequency pass band are very nearly alike, indicating that all gauges are functioning reasonably well. The noise floor at high frequencies is very low relative to the wind wave signal and is nearly uniform for all but five gauges. Four of the Senso-Metric gauges have slightly elevated noise levels, but these levels do not have a significant effect in the wind wave pass band. The curve labeled C in Figure 4 represents data from the Paroscientific sensor, which had an inherently quieter background noise level than the other gauges.

The inset graph in Figure 4 reveals information about gauge mean values. Data records were divided into 15 half-overlapping segments, each having a duration of 17 min 4 sec. Segment mean values were then computed for each gauge. Ideally, when gauge means are corrected for the depth of water in which they were deployed and for the elevation of the gauge from the ocean bottom, they would all give a measure of mean water level arising from tidal elevation, barometric overpressure, and any wind- or wave-induced setup. These means should all be the same for all locations in the array for that segment of time. Experience has shown that the Senso-Metric gauges used in the array tend to have a modest mean drift over time scales of months. For the analysis used to produce this report, an estimate of true water depth was computed by finding the median of the set of corrected gauge means for each segment. The inset in Figure 4 shows the deviation of individual gauge means from this median value as a function of segment number, and indicates, for this example, mean depth errors ranging from about 0.15 m (0.49 ft) low to about 0.15 m (0.49 ft) high. By referencing all gauges to the median mean depth, potential errors in surface correcting the wind wave part of the signal are reduced.

The triangular symbol in the inset in Figure 4 shows the deviation of the median mean depth from still-water level (based on the 1929 National Geodetic Vertical Datum) as a function of segment number. The resulting curve represents the combined effects of tide, setup, and barometric overpressure. The square symbol in the inset of Figure 4 is the deviation of barometric pressure from one standard atmosphere in units of meters of sea water as a function of segment number. This curve indicates the magnitude of atmospheric pressure on pressure measurements of mean water level. This effect is removed from pressure gauge means by subtracting the excess of atmospheric pressure over one standard atmosphere from each of the gauge means.

It is noted that the present method of error checking is different from that used for results reported for the first four years of array analysis (Long 1991a, 1991b; Long and Smith 1993, 1994). The older method relied on moments and extremal characteristics derived from data time series in the time domain. The present method casts the data in the frequency domain, but is sensitive to the same underlying characteristics that would flag data as suspect in the older method, and is

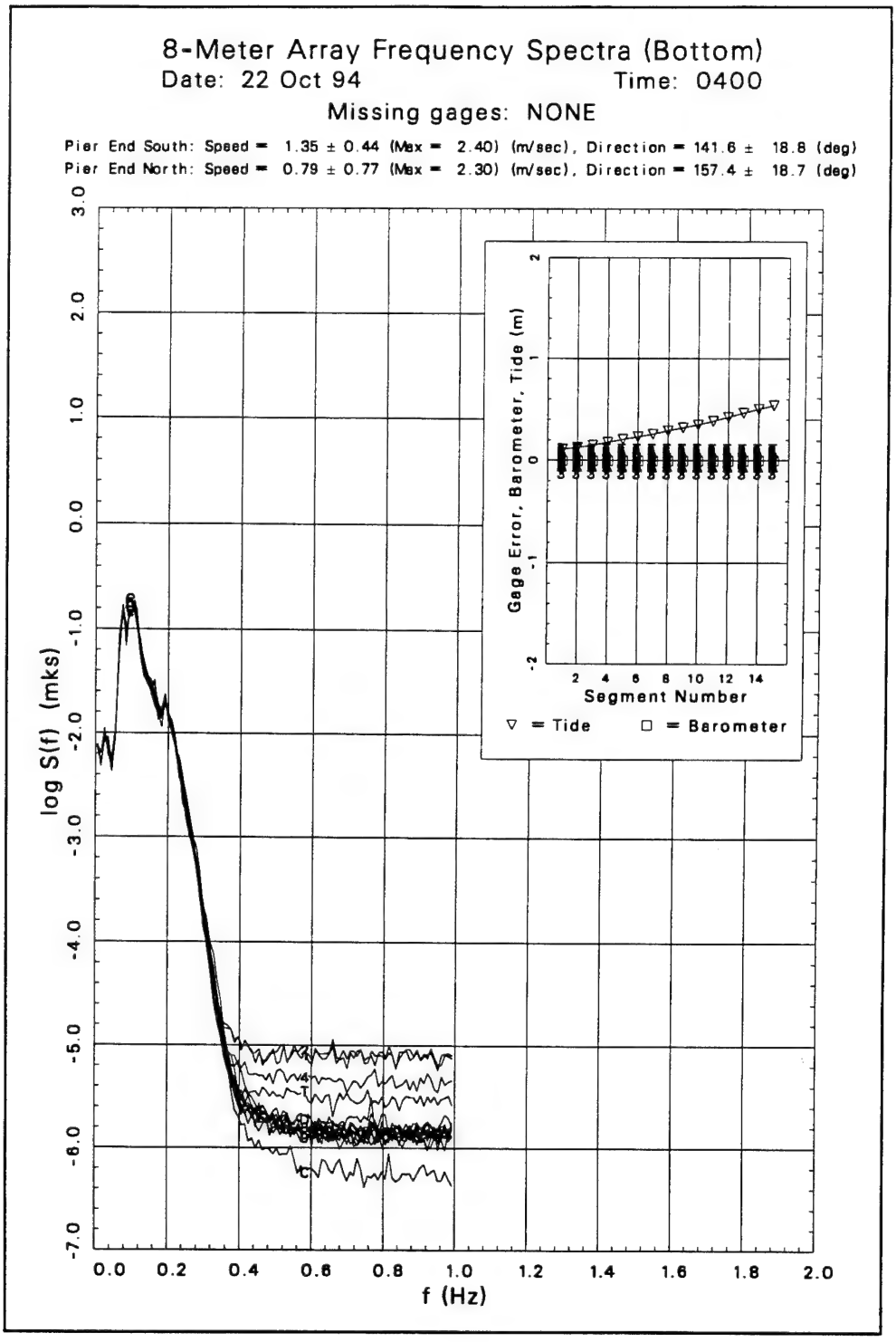

Figure 4. Example of overplotted frequency spectra

much easier to use. In both methods, if a gauge demonstrated properties that deviated too much from properties of the other gauges, it was flagged as being suspect, and the data were then further examined by hand to ensure that the flagging procedure had indeed identified a malfunctioning gauge.

If a gauge malfunctioned, it was not used in further analysis. The analysis programs were written so that data from a subset of gauges could be analyzed. A few gauges could then be lost without seriously compromising the results. Using fewer gauges yields a somewhat reduced directional resolution. Some gauges are more critical than others. If any of the gauge pairs with 5-m (16.4-ft) spacings are lost, results become invalid at high frequencies due to spatial aliasing. In these cases, directional analysis was truncated at a lower high-frequency limit (generally 0.24 Hz instead of the normal 0.32 Hz). As discussed in the next section, there are additional reasons for eliminating gauges from directional wave estimation at some frequencies in a spectrum. However, fewer than four gauges are never used for any frequency.

To keep track of the set of functioning and not otherwise eliminated gauges, a parameter called the *gauge pattern* was created and stored with the results for each frequency in archived directional spectra. The gauge pattern is a 16-place character string that represents which of the possible gauges (the 15 array gauges plus the optional gauge T) were used to compute a directional spectrum at a particular frequency. The string contains the identifying characters (based on the gauge identification scheme shown in Figure 3) of gauges that were used in analysis followed by blank characters (if any) to fill out the string. This parameter can be of use in later analysis for assessing the directional resolving ability of a particular sub-array of gauges. This definition of gauge pattern differs from that used for the first four years of archived data, but the automated analysis algorithm was modified in September 1990 to be more dynamic in gauge selection (as described in the next section), and so necessitated this change.

Frequency-Direction Spectra

Two types of spectra

Data from the array of gauges are processed as two separate entities, both of which are frequency-direction spectra, but having different properties. One of the entities is a frequency-direction spectrum using only the original nine gauges (gauges 1, 2, 3, 4, 5, 6, 7, 8, and 9 in Figure 3) of the alongshore linear array. Directional spectra from this set of gauges are referred to as *linear array* results. The other entity is a frequency-direction spectrum using all gauges. Directional spectral estimates using all gauges are called *8-m array* or *full array* results.

There are several reasons for this distinction. One is that the database for the first four years of this study is based on results from the linear array. Comparisons of results over the full duration of the study and the accumulation of climatological statistics require a continued analysis of the linear array as a unique entity. A shortcoming of the linear array is that it cannot distinguish seaward-propagating waves from incident waves. In processing linear array data, it must be assumed that all wave energy is incident, which does not allow for the possibility of reflections from the nearshore. This problem is overcome by using the full array, which includes gauges at cross-shore locations (gauges 0, A, B, C, D, and E in Figure 3) off the line of the linear array. The full array can detect wave energy propagating in all directions and so can be used to estimate the amount of wave energy reflected (and otherwise propagating) from the nearshore.

Ideally, the full array would be adequate for all directional spectral estimates. However, the analysis algorithm for the full array is based on the assumption that waves are propagating through water of constant depth. In fact, the depth changes by about 0.8 m (2.6 ft) over the cross-shore breadth of the array (from gauge E to gauge A), or roughly 10 percent of the total depth. Intermediate- and shallow-water waves transform, largely by refraction, as they propagate through water of changing depth. This transformation introduces a slight shift in the phase difference between waves at two cross-shore locations relative to the phase difference of waves that are not transformed. Directional spectral estimates depend critically on accurate estimates of phase difference, and the effect of transforming waves, though slight, is to introduce an increased spread in the directional distribution of wave energy, especially for waves at high angles of attack. An optical analogy is a camera with a poorly ground lens that will focus clearly at the center but is slightly blurred at the edges.

The linear array does not have this blurring effect because waves have the proper phase difference as they cross a line of constant depth. Consequently, directional spectral estimates from the linear array are better resolved in their detailed structure. Because of this better resolution, linear array results are used in this report for all characterizing parameters except reflection coefficients. Though full array results can be somewhat blurred, reflection coefficients are based on total energy in 180-deg arcs of direction, and so are less sensitive to a lack of detailed resolution than are other parameters like peak direction and directional spread. Note, however, that both linear array and full array spectra and associated parameters are computed, archived, and available through the mechanisms described in this report for all collections listed in Appendix A.

Spectral estimation

Estimation of the frequency-direction spectrum is done in five parts. First, a working gauge set is identified. Second, time series of pressure data from each of the working gauges are Fourier transformed to the frequency domain. Third, these transforms are converted to sea-surface displacement transforms. Fourth, cross spectra of sea-surface displacement are computed between all unique gauge pairs for each frequency. Finally, an estimate is made of a directional distribution of wave energy that corresponds to the computed spatial variation in cross-spectral density for each frequency.

The choice of gauges to be used in a frequency-direction spectrum at a particular frequency depends on available gauges after error checking (described previously), the wavelengths of the waves to be resolved, and somewhat on the nature of the directional distribution of wave energy being estimated. Ocean wave signals at a given frequency tend to become uncorrelated over distances of a few wavelengths. Cross spectra of signals from two gauges of high-frequency (short wavelength) waves are reduced to noise if gauge separation is too great. Conversely, cross spectra of signals from two closely spaced gauges do not yield a great deal of information about very long waves because the two signals are almost identical. Because of these characteristics of ocean waves, sub-arrays of both the linear and 8-m arrays are defined so that minimum gauge spacing and

maximum array extent are tuned to ranges of wind wave frequencies, and directional spectra are estimated from the gauges in these sub-arrays.

An additional constraint on gauge usage is based on the observation by Davis and Regier (1977) that occasionally the directional spectrum is of sufficiently simple shape that some of the cross-spectral information becomes redundant, meaning that too many gauges (or, perhaps, gauges in less than ideal locations) have been employed in the directional estimate. An indication of this condition is that the matrix of cross-spectral estimates becomes singular in the mathematical sense, and directional estimation becomes impossible. When this occurs in the course of a computation, the procedure is to eliminate a gauge from the sub-array being used, and restart the computation. To avoid eliminating a critical gauge, an order for gauge elimination was established that retained gauges known to be important. Because this procedure occurred in automated processing, a complete gauge elimination pattern was defined. If fewer than four gauges remained at any point in processing, the entire analysis was aborted for that collection.

Table 1 shows the wind wave frequency band sub-ranges, the sub-array of gauges to be used with each frequency sub-range, and the elimination order of gauges in each sub-array for the gauges of the linear array. A column under a gauge number that contains an integer indicates a gauge to be used for the frequency range shown in the left column. The integers in each row indicate the order in which gauges are to be eliminated. For example, in the next-to-highest frequency range of the original array ($0.14\ \text{Hz} < f \leq 0.19\ \text{Hz}$ in Table 1), gauges 1, 2, 3, 4, 5, and 6 define the sub-array. In the event that a gauge must be eliminated, gauge 3 is eliminated first. If a second gauge must be eliminated, it is gauge 6, and so on, until the four-gauge limit is reached (if necessary). Table 2 shows the same type of information for the full array.

Table 1
Linear Array Gauge Usage

Frequency Range (Hz)	Gauge									
	1	2	3	4	5	6	7	8	9	T
$0.04 < f \leq 0.08$	5	1		7	4	6	8	2	3	
$0.08 < f \leq 0.14$	5	2	1	6	4	7	3			
$0.14 < f \leq 0.19$	5	6	1	4	3	2				
$0.19 < f \leq 0.32$	2	3	4	5	1					

Because gauge set definition varies with frequency, and is somewhat data-adaptive in that some spectra require gauge elimination and others do not, it is important that a record be kept of the set of gauges used for each frequency in a collection analysis. This is the primary purpose of the gauge pattern parameter defined previously. The gauge pattern parameter is always kept with the archived results, and the limit of the minimum of four gauges for each directional estimate is never violated. Once the appropriate set of gauges has been identified, the subsequent analysis operations of Fourier transformation, surface correction, cross-spectral computation, and directional spectral estimation can proceed.

Table 2
8-m Array Gauge Usage

Frequency Range (Hz)	Gauge															
	1	2	3	4	5	6	7	8	9	0	A	B	C	D	E	T
$0.04 < f \leq 0.08$	1	11			12	8	6	5	2		9	10	7	4	3	
$0.08 < f \leq 0.12$	5	7			10	11	2	1			3	6	8	9	4	
$0.12 < f \leq 0.21$	7	10	11	6	3	1				8		4	9	5	2	
$0.21 < f \leq 0.32$	3	5	7	6						4			2	1		

The Fourier transform is conventional. An 8,192-sec time series is divided into 15 half-overlapping segments of 1,024 sec. Segments are tapered with a Kaiser-Bessel window (a modified Bessel function of the first kind, compensated uniformly for loss of variance due to windowing) and fast Fourier transformed. An intermediate-resolution transform is found by averaging the 15 transformed segments, frequency by frequency. Final transforms are found by then averaging results over ten adjacent frequency bands. Final resolution bandwidth is 0.00976 Hz, and degrees of freedom are at least 150 (assuming eight contiguous segments and ignoring any gain from lapped segments). Transform estimates are retained for 29 frequency bands with band-center frequencies ranging from 0.044 to 0.318 Hz.

Conversion of pressure signals at depth to water-surface displacement is done through the linearized wave theory pressure response factor as described in the *Shore Protection Manual* (1984). After this conversion, complex cross spectra in the form of coincident and quadrature spectra are computed in the conventional way (Bendat and Piersol 1971, Jenkins and Watts 1968) between all unique gauge pairs for each frequency.

Conversion of cross-spectral patterns in lag space to directional spectra is done with the Iterative Maximum Likelihood Estimation algorithm derived and described by Pawka (1982, 1983). The algorithm is also described in application to data from heave-pitch-roll buoys by Oltman-Shay and Guza (1984), and Long (1995) gives a modestly expanded description of the algorithm for two-dimensional spatial arrays. Accuracy of directional estimates depends on frequency, with high-frequency waves (short wavelengths) being better resolved by an array of finite length. Tests with artificial data indicate that the FRF linear array generally can resolve the direction of a unidirectional wave train to within 5 deg and can distinguish two wave trains at the same frequency if their directions differ by at least 15 deg.

The algorithm used here employs discrete direction "bandwidths" or arcs of about 1 deg for all frequencies. Because this increment is finer than the resolution of any of the arrays, directional results are smoothed by integrating over 2-deg arcs and renormalizing by this arc width to create evenly spaced directional spectra at all frequencies. Because linear array results are valid only in the

180-deg arc representing seaward approach directions, dividing this range into 2-deg arcs results in 91 arc center directions with which to characterize discretely the directional distribution of wave energy from the linear array. The full array can detect wave energy from all directions, so results are represented in 181 directional bins of 2-deg width (the terminal bins are redundant).

The primary result of data processing is an estimate of the discrete frequency-direction spectrum $S(f_n, \theta_m)$, which represents the variance of sea-surface displacement per frequency resolution bandwidth df (= 0.00976 Hz) per direction resolution arc $d\theta$ (= 2 deg), where f_n is the n^{th} of N = 29 discrete frequencies and θ_m is the m^{th} of M = 91 (for the linear array) or 181 (for the full array) discrete directions. In this work, direction is considered to be the angle from which wave energy is coming, measured counterclockwise from shore-normal (Figure 2).

Numerical values of $S(f_n, \theta_m)$ can range over many orders of magnitude, depending on the amount of energy in a given frequency band and direction arc, and this can require space-consuming formats for archiving data. To simplify this problem, frequency-direction spectra are saved as directional distribution functions $D(f_n, \theta_m)$ defined by

$$D(f_n, \theta_m) = \frac{S(f_n, \theta_m)}{S(f_n)} \tag{1}$$

The directional distribution function has units of deg^{-1}, and its integral with respect to direction over all directions is unity.

The frequency spectrum $S(f_n)$ in Equation 1 represents the sum over all directions of sea-surface variance per frequency bandwidth and is defined in terms of the frequency-direction spectrum by

$$S(f_n) = \sum_{m=1}^{M} S(f_n, \theta_m)\, d\theta \tag{2}$$

where the variables on the right-hand side are defined above. Note that this is identical to a conventional frequency spectrum that would result from a time series of sea-surface displacement at a single point in space. Because it is an integral of the frequency-direction spectrum, it is called the integrated frequency spectrum.

A directional analog of the frequency spectrum is the integrated direction spectrum, found by summing the frequency-direction spectrum over all frequencies for a fixed-direction arc. It is computed from

$$S(\theta_m) = \sum_{n=1}^{N} S(f_n, \theta_m)\, df \tag{3}$$

Figures 5 and 6 show ways to display frequency-direction spectra and the corresponding integrated frequency and integrated direction spectra from the two types of array analysis for the same collection time. Figure 5 displays results from the linear array, with some characterizing parameters shown in the figure header. Note that energy is displayed only for incident waves (-90 deg $< \theta_m <$ 90 deg).

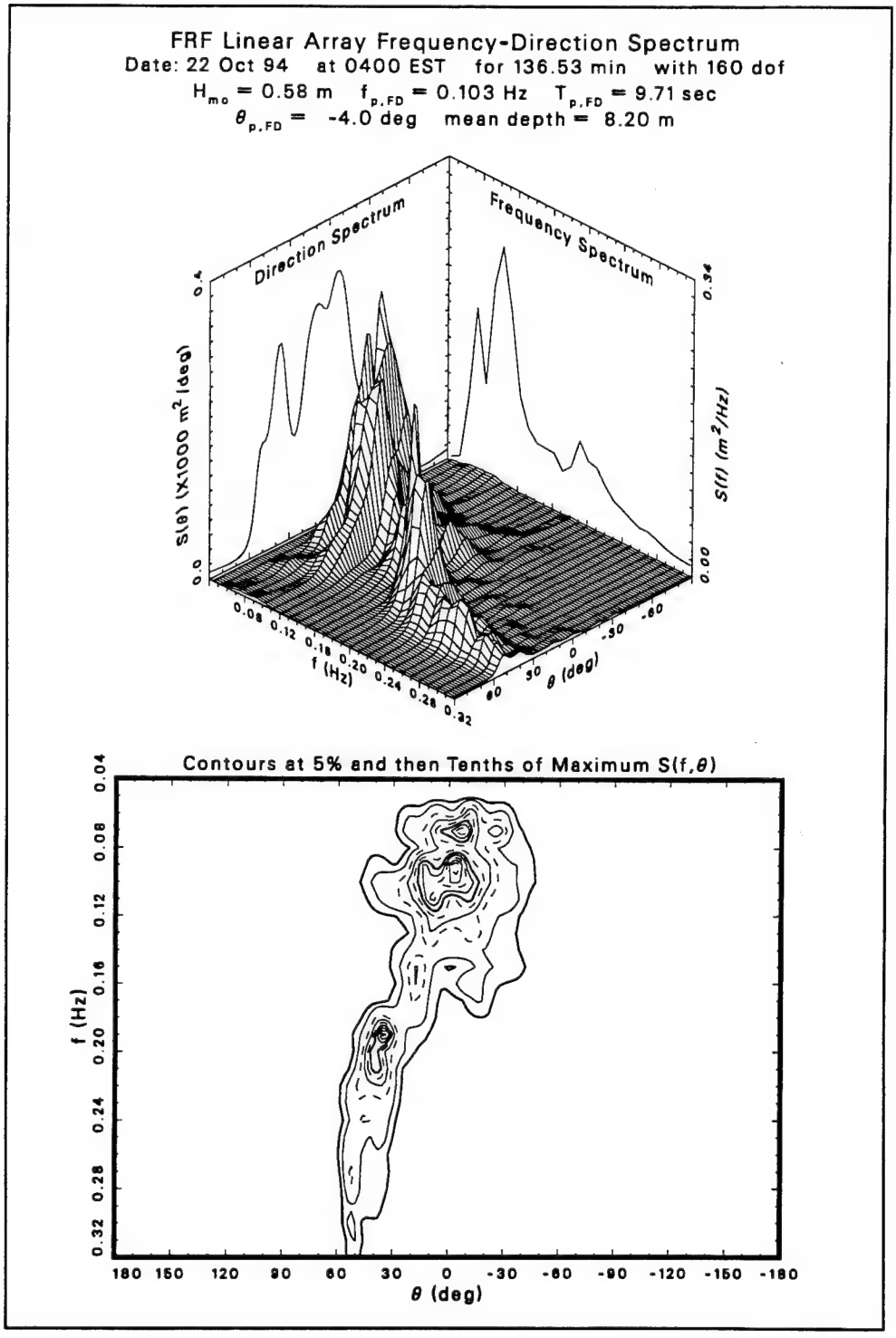

Figure 5. Example of a linear array frequency-direction spectrum

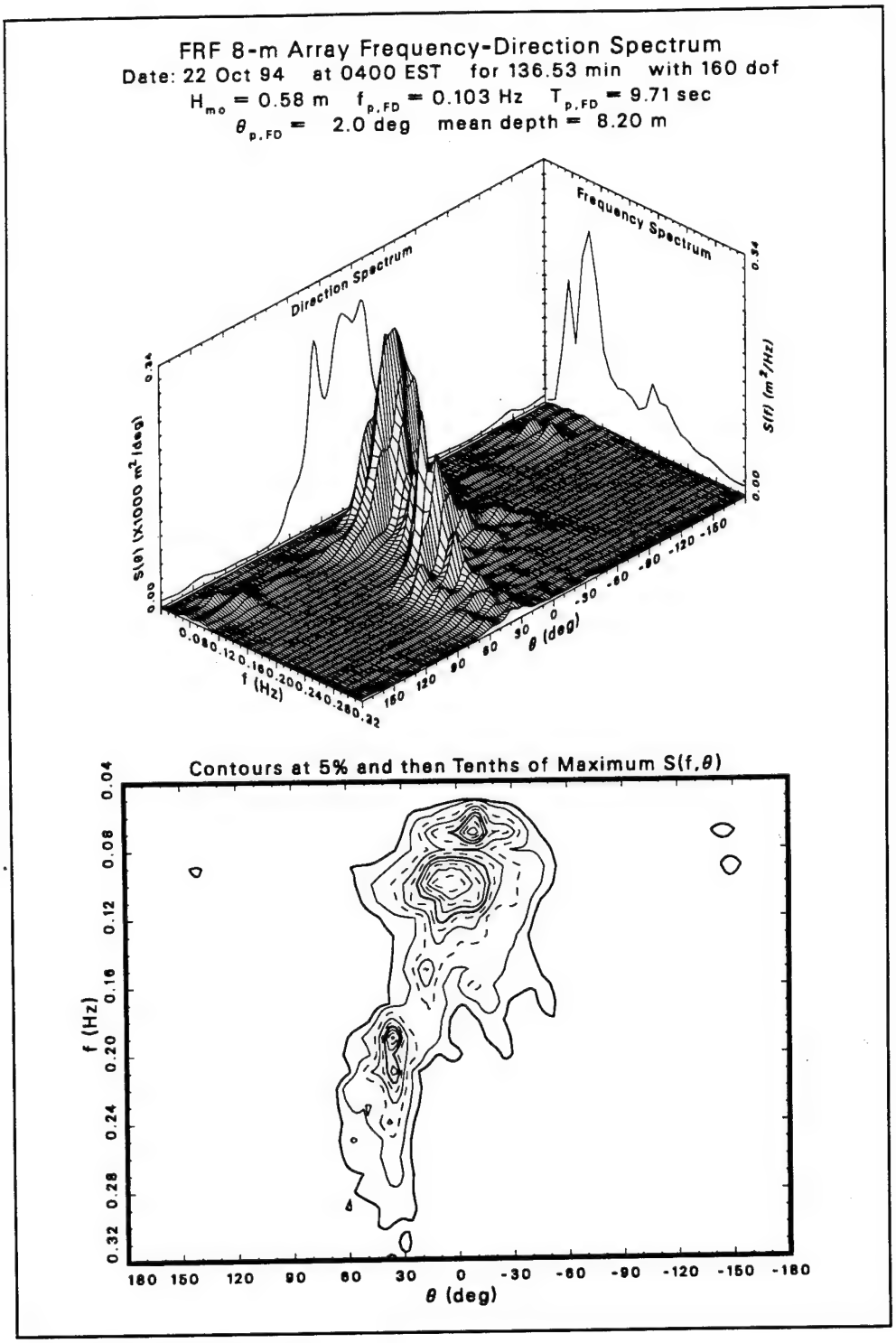

Figure 6. Example of a full-array frequency-direction spectrum

Figure 6 shows results from the full array. The characterizing parameters derived from this spectral estimate are nearly the same as those for the linear array results in Figure 5, showing that the two estimates are consistent in this regard, as expected. In Figure 6, directional energy estimates cover a complete circle. The small lumps centered near directions ±140 deg and ±150 deg are indications of reflected energy.

Bulk Parameters

Several parameters have been computed to characterize the observed spectra. There are five basic types of parameters: (a) characteristic wave height, (b) peak frequency (or its inverse, peak period), © peak direction, (d) directional spread, and (e) reflection coefficient. In this report, the first four of these parameters are computed from linear array results. The fifth is computed using results from the full array. Because there is more than one way to define some of these parameters, several alternate forms are presented here.

Characteristic wave height

Characteristic wave heights from spectral observations are most frequently given as H_{mo}, which is four times the standard deviation of sea-surface displacement. It can be determined from the volume under the frequency-direction spectrum by the equation

$$H_{mo}^2 = 16 \sum_{n=1}^{N} \sum_{m=1}^{M} S(f_n, \theta_m)\, df\, d\theta \tag{4}$$

It can also be found from the integrated frequency spectrum by

$$H_{mo}^2 = 16 \sum_{n=1}^{N} S(f_n)\, df \tag{5}$$

which is its more conventional definition, or from the integrated direction spectrum (Equation 3) by

$$H_{mo}^2 = 16 \sum_{m=1}^{M} S(\theta_m)\, d\theta \tag{6}$$

Peak frequency

Peak frequency, which has the generic notation f_p, can be defined in at least two ways. One way is to find the frequency (and direction) at which the frequency-direction spectrum is maximum. This peak frequency is denoted $f_{p,FD}$. Another way is to find the frequency at which the integrated frequency spectrum is maximum. This is the more conventional definition, because of the plethora of measured frequency spectra, and is denoted $f_{p,IFS}$. The two peak frequencies may not be the same. If the directional distribution is broad at the frequency for which the integrated frequency spectrum is maximum, it is possible that another frequency, at which the frequency-direction spectrum has a narrow distribution, will denote the maximum of the frequency-direction spectrum.

Peak period

Peak period is the characteristic wave period associated with spectral peak frequency. Denoted generically by T_p, it is related to peak frequency by $T_p = 1/f_p$. Peak period from the frequency-direction spectrum is given by $T_{p,FD} = 1/f_{p,FD}$. Conventional peak period, derived from the integrated frequency spectrum, is given by $T_{p,IFS} = 1/f_{p,IFS}$.

Peak direction

Peak direction is the direction representing the most energy density. Given the generic symbol θ_p, it, too, can be defined in several ways. One peak direction can be defined from the maximum of the frequency-direction spectrum. It is denoted by $\theta_{p,FD}$. Another peak direction can be associated with the maximum of the integrated direction spectrum, defined previously. This peak direction is denoted $\theta_{p,IDS}$. It can differ from $\theta_{p,FD}$ if energy in the frequency-direction spectrum is centered at different directions for different frequencies. This condition tends to smear energy along the direction axis in the integrated direction spectrum, thereby shifting the peak relative to the peak of the frequency-direction spectrum. A third measure of peak direction is a weighted average peak direction defined by

$$\theta_{p,SW} = \frac{1}{\left(\frac{1}{4} H_{mo}\right)^2} \sum_{n=1}^{N} S(f_n)\, \theta_{p,n} \tag{7}$$

where

$\theta_{p,n}$ = peak direction of the directional distribution at the n^{th} frequency of the frequency-direction spectrum

$S(f_n)$ = integrated frequency spectrum from Equation 2

and H_{mo} is defined by Equation 4. This definition gives higher weights to the more energetic peak directions, but does not rely on the single distribution with the most energy.

Directional spread

A fourth type of characteristic parameter is directional spread. This parameter, denoted generically as $\Delta\theta$, gives a measure of the range of directions from which some significant fraction of energy is propagating. The basic definition used here is the arc subtended by the middle two quartiles of a directional distribution. As illustrated in Figure 7, the directional distribution function $D(f_n, \theta_m)$ for a particular frequency f_n can be integrated from one bounding direction (here the shore-parallel direction at +90 deg) to some arbitrary direction θ_j to make a cumulative distribution function $I(f_n, \theta_j)$. The formal definition is

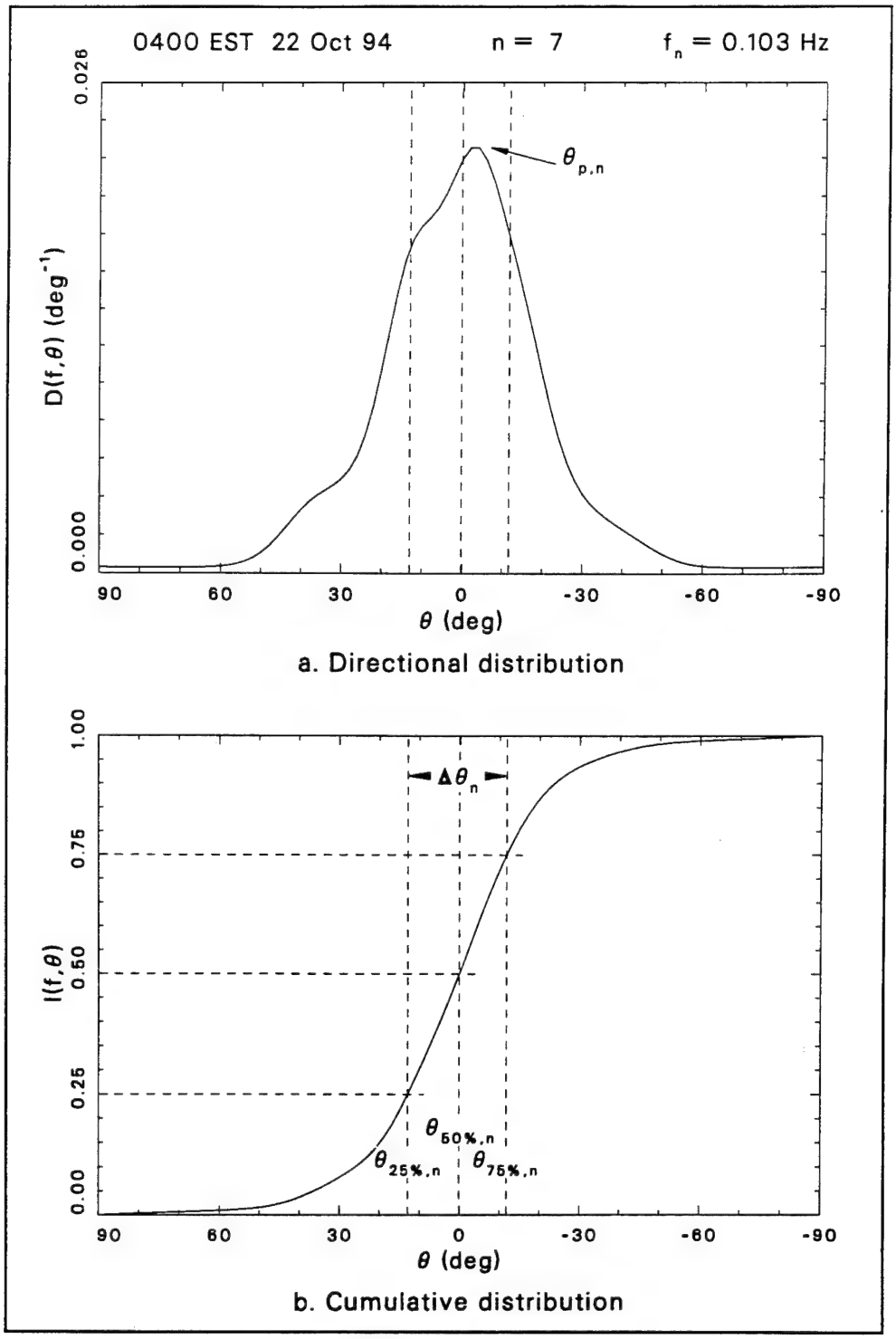

Figure 7. Directional spread computation

$$I(f_n,\theta_j) = \sum_{m=1}^{j} D(f_n,\theta_m)\, d\theta \qquad (8)$$

where j is the index of a discrete angle bin. The three quartile directions, called $\theta_{25\%,n}$, $\theta_{50\%,n}$, and $\theta_{75\%,n}$, respectively, satisfy the equations

$$I(f_n, \theta_{25\%,n}) = 0.25 \tag{9}$$

$$I(f_n, \theta_{50\%,n}) = 0.50 \tag{10}$$

$$I(f_n, \theta_{75\%,n}) = 0.75 \tag{11}$$

A directional spread parameter for the n^{th} frequency is defined by

$$\Delta\theta_n = \theta_{25\%,n} - \theta_{75\%,n} \tag{12}$$

If Equation 12 is applied at the frequency where the frequency-direction spectrum is maximum, a measure of directional spread at the peak of the frequency-direction spectrum is obtained. This parameter is denoted $\Delta\theta_{FDP}$. If, instead of a directional distribution function at a single frequency, the normalized integrated directional spectrum is used in the set of Equations 8 to 12, a measure of bulk directional spread is obtained. This parameter is given the symbol $\Delta\theta_{IDS}$. A third measure of directional spread is found from a spectrally weighted average of the spreads from all frequencies. Denoted as $\Delta\theta_{SW}$, this parameter is found from

$$\Delta\theta_{SW} = \frac{1}{\left(\frac{1}{4}H_{mo}\right)^2} \sum_{n=1}^{N} S(f_n)\,\Delta\theta_n \tag{13}$$

Equation 13 is like Equation 7 for the spectrally weighted peak direction.

Reflection coefficient

Following the definition in the *Shore Protection Manual* (1984), a reflection coefficient is a ratio of incident wave height to reflected wave height. This simple definition is based on the concept of unidirectional, monochromatic waves, which never occur in the real ocean. An adaptation of this definition for the purposes of this report is to use characteristic incident wave height $H_{mo,i}$ and characteristic reflected wave height $H_{mo,r}$ to define an energy-based reflection coefficient χ as

$$\chi = \frac{H_{mo,r}}{H_{mo,i}} \tag{14}$$

Incident and reflected wave heights are defined in terms of incident and reflected energy. Squaring both sides of Equation 14 then yields an estimate of the ratio of

total reflected to total incident wind wave energy, a characteristic that may be useful in consideration of nearshore dynamics.

Some care must be exercised both in defining and interpreting the characteristic wave heights and their ratio. Intrinsic in all spectral estimates is some level of background system and analysis noise that is not related to wave signals, is often unevenly distributed in direction, and is capable of severely degrading a ratio of entities like that in Equation 14. In a rough attempt to minimize the effects of background noise, a noise estimate is made by finding the minimum of the frequency-direction spectrum at each frequency $S_{min}(f_n)$, and computing incident energy E_i and reflected energy E_r relative to these minima. Using the full-array frequency-direction spectrum for these computations, the incident energy is

$$E_i = \rho g \sum_{n=1}^{N} \sum_{m=46}^{136} w_m \left[S(f_n, \theta_m) - S_{min}(f_n) \right] d\theta \, df \tag{15}$$

and the reflected energy is

$$\begin{aligned} E_r = \rho g \sum_{n=1}^{N} \sum_{m=1}^{46} w_m \left[S(f_n, \theta_m) - S_{min}(f_n) \right] d\theta \, df \\ + \rho g \sum_{n=1}^{N} \sum_{m=136}^{M} w_m \left[S(f_n, \theta_m) - S_{min}(f_n) \right] d\theta \, df \end{aligned} \tag{16}$$

where ρ is water density, g is gravitational acceleration, and all $w_m = 1$, except $w_1 = w_{46} = w_{136} = w_M = \frac{1}{2}$. The w_m are simply convenient notations that show the proper contributions of the spectrum to the end points of the sums in Equations 15 and 16, and do not otherwise affect the integrations. In terms of incident and reflected energies, the corresponding characteristic wave heights are

$$H_{mo,i} = 4 \sqrt{\frac{E_i}{\rho g}} \tag{17}$$

and

$$H_{mo,r} = 4 \sqrt{\frac{E_r}{\rho g}} \tag{18}$$

so that, on substitution of Equations 17 and 18 into Equation 14, the reflection coefficient becomes

$$\chi = \sqrt{\frac{E_r}{E_i}} \tag{19}$$

The simple noise estimate used here does not eliminate the effects of noise in computing Equation 19 using Equations 15 and 16. This condition is evident in the tabular listings in Appendix A and the plotted results in Appendix B. There is a persistent background level of $\chi \approx 0.1$, which suggests that there is always about 1 percent of incident wave energy propagating back out to sea, a condition that is unlikely to be true. Synthetic tests by Long and Oltman-Shay (1993) using the algorithms described in this report indicate errors as large as 200 percent for $\chi \approx 0.1$, but with the error dropping rapidly for larger χ. A reasonable way to interpret the results in this report is to consider $\chi \geq 0.2$ as indicative of some reflection, and then to examine such spectra in detail for verification. In the spectrum shown in Figure 6, for example, the tabulated reflection coefficient is 0.22, and the figure does indeed indicate some reflected energy.

Parameter summary

Together, the 12 parameters H_{mo}, $f_{p,FD}$, $f_{p,IFS}$, $T_{p,FD}$, $T_{p,IFS}$, $\theta_{p,FD}$, $\theta_{p,IDS}$, $\theta_{p,SW}$, $\Delta\theta_{IDS}$, $\Delta\theta_{SW}$, $\Delta\theta_{FDP}$, and χ give a bulk characterization of some properties of the frequency-direction spectra discussed in this report. There are, of course, many other parameters that can be defined, but the present set is simple, and is easier to use than the 2,639 discrete spectral densities (29 frequencies × 91 directions) required for a full description of any linear array spectrum, or the 5,249 elements (29 frequencies × 181 directions) of any full-array spectrum discussed here.

6 Archived Results

Optical disks containing the sets of observed linear-array and full-array frequency-direction spectra from this collection period have been created to archive the observations. Appendix A contains a listing of the date, starting time (EST), and the characterizing parameters defined previously for each case archived. It serves as an index or catalog of the set of available cases. For reasons explained below, dates in Appendix A are given in the form *yymmdd* to represent year, month, and day, all in two-digit integer form.

Graphic representations of data collection times, some bulk parameters, and some auxiliary environmental variables are contained in Appendix B. One graph is shown for each month of the collection period. The upper part of each graph has time series plots of the bulk parameters H_{mo}, $T_{p,IFS}$, $\theta_{p,IDS}$, and $\Delta\theta_{IDS}$ derived from the linear array, and χ derived from the full array. The lower part of each graph has stick figure plots of three environmental variables. First is a kind of crude wave vector in which the stick vector has a length proportional to H_{mo} and a direction given by $\theta_{p,IDS} + 180 \text{ deg}$. The 180 deg is added to provide a physical frame of reference consistent with a vector pointing in the direction of energy propagation. Because peak wave energy is always directed onshore, all stick vectors in this part of the graph will have a component directed upward on the page.

The second stick figure plot is a wind vector as measured with one of the two FRF pier-end anemometers. Mounted at the seaward end of the FRF pier (Figure 2) at an elevation 19.5 m above mean sea level, these instruments give a reasonable estimate of the wind climate in the vicinity of the 8-m array. Both anemometers are of the impeller-vane type, and are separated horizontally by less than 2 m (to ensure uninterrupted wind observations in the event of failure of one of them). Note that prior to 28 September 1994, there was only one anemometer at pier end. Anemometer data are vector averaged and wind velocity variances are computed both in and perpendicular to the mean wind direction. Archived with wave spectral results are mean wind speed, maximum wind speed, wind speed standard deviation, mean wind direction, and a measure of wind direction variability (defined as the arc tangent of the ratio of cross-stream standard deviation of wind velocity to the mean wind speed).

The third stick figure is the current vector as measured with a current meter located on the line of the linear array, about 7 m (23 ft) southward of gauge 8 (Figure 2). This current meter is in a different location from the one used in the

first three directional spectral index reports (Long 1991a, 1991b; Long and Smith 1993), or the one used in the subsequent four reports (Long and Smith 1994, Long and Atmadja 1994, Long and Pemberton 1994, Long and Roughton 1994). Furthermore, this current meter was removed completely on 16 November 1994, so that no current meter data are available after that date. This instrument was approximately 2.4 m (7.9 ft) off the bottom in water about 8 m (26 ft) deep and, therefore, sensed currents near the bottom. All available current data are plotted. The current meter was subject to storm damage, biological fouling, and duration-related electronic problems, so that data coverage is not complete for the time when the current meter was in use. Of existing data, the reader may note a significant anticorrelation between cross-shore winds and cross-shore currents. This is consistent with the behavior of wall-bounded, shallow-water, wind-generated currents. Additional details about the anemometers and current meter are given by Birkemeier et al. (1985).

7 Retrieving Processed Data

The electro-optical medium containing the directional-spectral data archive is compact, but not very transportable. Consequently, a conversion program has been written to transform the data into a rather conventional, 80-column formatted form that is much more easily distributed on common magnetic media or over an electronic network. A user requesting some or all of the data will, unless otherwise specified, receive the data in formatted form. It may be possible to transfer the data in other ways, and specific requests can be coordinated with the FRF.

The data archive for the period covered by this report contains two sets of 3,581 files, one set for linear array results, and the other for full array results, with one file for each collection. In formatted form, a linear array file has a length of about 30,000 bytes, and a full array file is about twice this size. The complete archive for this collection period contains roughly 322 MB of information. A user may wish to consider whether this quantity of information will take too much system space before trying to copy the whole archive. Subsets of data covering specific time periods can readily be created by the FRF.

An ASCII-formatted file is usually named LA*yymmddhhmm*.ASC for a linear array frequency-direction spectrum, or FD*yymmddhhmm*.ASC for a full array frequency-direction spectrum. In these file names, the character grouping *yymmdd* represents the data collection date (as listed in Appendix A), and the character grouping *hhmm* represents the data collection start time as hour and minute, both in two-digit integer form (also from Appendix A).

Once a file is on equipment and in a position to be read, it can be input to a computer program through a set of ASCII read statements. Appendix C contains a listing of a FORTRAN program that can read the formatted data files. The variables contained in a data file are listed in the header of the program in Appendix C. A listing of a sample data file of linear array results is given in Appendix D. Read statements in the program in Appendix C can be aligned with data fields of the listing in Appendix D if the user wishes to edit or visually read a data file. Program variable names, especially those that have parallel symbols in this text, are also listed in the Notation (Appendix E).

A user can obtain data by communicating with the FRF via:

Surface mail	Chief, Field Research Facility 1261 Duck Road Kitty Hawk, NC 27949-4472
Telephone	(919) 261-3511
FAX	(919) 261-4432

or any of the following Internet addresses:

C.Long@cerc.wes.army.mil
C.Baron@cerc.wes.army.mil
W.Birkemeier@cerc.wes.army.mil

More information about the FRF, a partial set of the statistics H_{mo}, $T_{p,IFS}$, and $\theta_{p,FD}$ from the full array, and all of the LA*yymmddhhmm*.ASC files are available at http://frf.wes.army.mil on the World Wide Web.

8 Summary of Results

Data from the final three months of the eighth and all of the ninth collection years of high-resolution directional-spectral observations at the FRF have been put in a form that is easily accessible to researchers interested in nearshore processes. The period covered by this report includes the dates of the DUCK94 experiment. Directional gauge array, directional analysis algorithms, and definitions of characterizing parameters are described in the body of this report, as are the location and form of archived data. Both a listing and a graphic presentation of data collection times and characteristic parameters are given in the appendixes. The appendixes also contain a sample data file and a listing of a FORTRAN program that can be used to read a data file.

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Appendix A
Table of Collection Times and Bulk Parameters

Table A1
Collection Times and Bulk Parameters

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	x
940601	0100	0.72	0.171	0.171	5.83	5.83	-44.0	-42.0	-39.6	25.3	21.7	15.7	0.17
940601	0400	0.67	0.152	0.162	6.59	6.19	-40.0	-42.0	-34.8	30.3	24.3	24.9	0.15
940601	0700	0.64	0.171	0.142	5.83	7.04	-44.0	-38.0	-35.2	32.9	28.6	29.7	0.13
940601	1000	0.58	0.142	0.132	7.04	7.56	-40.0	-42.0	-36.6	35.8	31.8	28.1	0.18
940601	1300	0.50	0.132	0.132	7.56	7.56	-38.0	-38.0	-40.8	34.3	30.2	29.1	0.20
940601	1900	0.50	0.142	0.132	7.04	7.56	-40.0	-38.0	-41.6	28.7	18.9	27.9	0.20
940601	2200	0.49	0.132	0.132	7.56	7.56	-38.0	-38.0	-40.3	26.0	19.7	24.2	0.21
940602	0100	0.45	0.152	0.142	6.59	7.04	-44.0	-44.0	-42.4	24.4	18.0	22.7	0.21
940602	0400	0.43	0.152	0.123	6.59	8.16	-42.0	-42.0	-40.9	27.6	20.2	31.0	0.21
940602	0700	0.39	0.142	0.123	7.04	8.16	-40.0	-40.0	-40.5	28.1	27.1	17.8	0.20
940602	1000	0.60	0.308	0.308	3.25	3.25	34.0	26.0	8.2	64.5	30.8	29.3	0.17
940602	1300	0.66	0.230	0.230	4.35	4.35	40.0	42.0	19.9	66.1	29.6	18.8	0.15
940602	1600	0.52	0.123	0.123	8.16	8.16	-38.0	-38.0	13.0	81.5	35.6	19.1	0.19
940602	1900	0.48	0.132	0.132	7.56	7.56	-36.0	-28.0	15.6	73.0	39.1	16.8	0.17
940602	2200	0.47	0.123	0.123	8.16	8.16	-36.0	-38.0	-1.2	66.2	43.2	15.3	0.18
940603	0100	0.47	0.123	0.123	8.16	8.16	-38.0	-40.0	-1.9	57.6	36.7	40.8	0.24
940603	0400	0.48	0.123	0.123	8.16	8.16	-40.0	-20.0	-8.4	47.6	31.7	22.8	0.23
940603	0700	0.50	0.123	0.123	8.16	8.16	-20.0	-20.0	-2.0	48.6	28.2	18.4	0.23
940603	1000	0.78	0.269	0.269	3.72	3.72	40.0	42.0	23.6	53.6	29.3	31.9	0.19
940603	1300	0.70	0.210	0.210	4.75	4.75	42.0	42.0	18.9	56.9	34.2	27.9	0.19
940603	1600	0.66	0.191	0.132	5.24	7.56	42.0	42.0	10.4	53.6	34.3	26.7	0.18
940603	1900	0.70	0.181	0.152	5.52	6.59	36.0	32.0	18.6	48.2	36.1	42.3	0.13
940603	2200	0.65	0.181	0.152	5.52	6.59	32.0	32.0	13.3	48.9	40.2	31.6	0.14
940604	0100	0.61	0.152	0.142	6.59	7.04	0.0	0.0	5.0	41.6	37.4	24.2	0.17
940604	0400	0.54	0.132	0.083	7.56	11.98	-34.0	-22.0	1.8	39.1	35.7	22.5	0.19
940604	0700	0.50	0.083	0.083	11.98	11.98	-18.0	-16.0	0.4	35.2	34.9	19.6	0.21
940604	1000	0.48	0.132	0.083	7.56	11.98	-16.0	-16.0	-6.7	32.1	32.6	28.1	0.21
940604	1300	0.48	0.083	0.083	11.98	11.98	-10.0	-22.0	-21.4	28.0	29.3	25.8	0.22
940604	1600	0.44	0.142	0.083	7.04	11.98	-34.0	-22.0	-27.1	26.1	27.1	26.4	0.21
940604	1900	0.45	0.083	0.083	11.98	11.98	-32.0	-20.0	-30.8	27.2	27.0	30.0	0.21
940604	2200	0.44	0.132	0.083	7.56	11.98	-20.0	-20.0	-28.5	27.5	27.3	30.5	0.25
940605	0100	0.47	0.123	0.083	8.16	11.98	-22.0	-22.0	-26.3	26.3	25.9	30.6	0.26

(Sheet 1 of 68)

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940605	0400	0.46	0.132	0.083	7.56	11.98	-22.0	-22.0	-26.7	27.3	25.3	29.3	0.22
940605	0700	0.46	0.083	0.083	11.98	11.98	-24.0	-20.0	-26.6	26.0	24.6	28.0	0.20
940605	1000	0.47	0.093	0.083	10.72	11.98	-28.0	-26.0	-30.4	24.6	21.8	30.9	0.21
940605	1300	0.49	0.113	0.083	8.87	11.98	-22.0	-24.0	-30.1	25.2	21.8	32.6	0.26
940605	1600	0.49	0.113	0.113	8.87	8.87	-20.0	-34.0	-35.0	27.0	21.9	16.4	0.25
940605	1900	0.47	0.113	0.083	8.87	11.98	-30.0	-30.0	-32.5	29.8	25.1	33.0	0.23
940605	2200	0.49	0.113	0.083	8.87	11.98	-26.0	-24.0	-30.9	28.2	25.3	29.1	0.20
940606	0100	0.51	0.123	0.113	8.16	8.87	-20.0	-20.0	-31.1	26.2	24.3	20.5	0.20
940606	0400	0.52	0.123	0.123	8.16	8.16	-34.0	-22.0	-32.1	25.4	23.4	17.3	0.22
940606	0700	0.49	0.113	0.093	8.87	10.72	-26.0	-24.0	-33.3	27.8	24.4	26.9	0.20
940606	1300	0.61	0.113	0.113	8.87	8.87	-18.0	-34.0	-36.5	28.0	18.9	15.7	0.22
940606	1600	0.68	0.318	0.113	3.15	8.87	-54.0	-52.0	-38.5	28.0	14.8	15.7	0.23
940606	1900	0.60	0.230	0.113	4.35	8.87	-52.0	-54.0	-37.1	29.0	16.9	17.4	0.20
940606	2200	0.53	0.152	0.152	6.59	6.59	-34.0	-36.0	-31.9	24.1	21.6	18.1	0.17
940607	0100	0.56	0.162	0.162	6.19	6.19	-24.0	-24.0	-32.3	22.2	20.2	14.2	0.18
940607	0400	0.56	0.162	0.162	6.19	6.19	-38.0	-36.0	-36.8	21.7	19.3	11.9	0.18
940607	0700	0.48	0.171	0.162	5.83	6.19	-42.0	-38.0	-34.7	24.6	19.6	12.5	0.21
940607	1000	0.47	0.191	0.103	5.24	9.71	-42.0	-38.0	-32.0	24.3	18.9	20.5	0.18
940607	1300	0.50	0.171	0.171	5.83	5.83	-40.0	-38.0	-34.9	24.2	15.8	13.6	0.21
940607	1600	0.53	0.113	0.113	8.87	8.87	-24.0	-52.0	-36.4	25.3	14.8	13.5	0.22
940607	1900	0.53	0.171	0.113	5.83	8.87	-42.0	-52.0	-38.2	25.1	13.6	15.6	0.21
940607	2200	0.47	0.113	0.113	8.87	8.87	-22.0	-22.0	-36.3	27.1	15.0	14.7	0.21
940608	0100	0.46	0.113	0.113	8.87	8.87	-20.0	-36.0	-37.4	25.3	16.4	17.4	0.21
940608	0400	0.46	0.113	0.113	8.87	8.87	-18.0	-38.0	-36.7	25.0	15.9	16.4	0.22
940608	0700	0.41	0.103	0.103	9.71	9.71	-24.0	-46.0	-35.5	28.7	17.4	17.0	0.24
940608	1000	0.39	0.103	0.103	9.71	9.71	-18.0	-38.0	-31.1	27.7	24.2	20.6	0.23
940608	1300	0.39	0.113	0.113	8.87	8.87	-22.0	-24.0	-32.0	23.5	20.8	15.8	0.26
940608	1600	0.50	0.103	0.103	9.71	9.71	-32.0	-26.0	-0.7	81.3	27.2	18.7	0.23
940608	1900	0.66	0.250	0.250	4.01	4.01	90.0	90.0	36.4	86.0	41.3	43.2	0.20
940608	2200	0.75	0.230	0.240	4.35	4.17	38.0	42.0	20.3	54.9	27.5	26.1	0.23
940609	0100	0.82	0.210	0.210	4.75	4.75	42.0	42.0	26.9	41.5	21.2	10.7	0.18
940609	0400	1.10	0.220	0.220	4.54	4.54	46.0	46.0	32.7	40.6	29.0	24.7	0.19
940609	0700	1.08	0.201	0.201	4.98	4.98	32.0	42.0	24.4	36.7	27.5	27.8	0.18
940609	1000	0.96	0.201	0.201	4.98	4.98	40.0	40.0	24.8	35.8	25.4	24.2	0.16
940609	1300	0.90	0.210	0.210	4.75	4.75	18.0	14.0	15.7	38.2	24.9	21.3	0.16
940609	1600	0.87	0.220	0.220	4.54	4.54	44.0	0.0	14.4	35.5	26.1	30.8	0.18
940609	1900	0.79	0.132	0.220	7.56	4.54	2.0	-2.0	14.4	37.7	28.3	33.6	0.18
940609	2200	0.67	0.123	0.142	8.16	7.04	4.0	2.0	10.2	30.9	29.3	20.5	0.17
940610	0100	0.68	0.132	0.132	7.56	7.56	2.0	2.0	3.7	28.0	27.6	15.2	0.12
940610	0400	0.73	0.142	0.142	7.04	7.04	-8.0	-8.0	-0.2	26.5	27.4	16.7	0.13
940610	0700	0.68	0.123	0.123	8.16	8.16	4.0	-10.0	-1.6	27.4	27.9	15.3	0.19
940610	1000	0.61	0.132	0.132	7.56	7.56	2.0	-8.0	-1.4	30.1	30.4	20.7	0.18
940610	1300	0.59	0.132	0.113	7.56	8.87	2.0	-2.0	-2.9	27.1	27.8	23.6	0.14
940610	1600	0.65	0.113	0.113	8.87	8.87	-14.0	-4.0	-6.0	28.8	28.7	21.7	0.13
940610	1900	0.64	0.113	0.113	8.87	8.87	-8.0	-8.0	-10.0	29.8	29.2	22.8	0.15
940610	2200	0.53	0.113	0.113	8.87	8.87	-14.0	-14.0	-14.6	29.9	30.0	23.4	0.17
940611	0100	0.54	0.113	0.113	8.87	8.87	-12.0	-10.0	-14.9	30.4	32.5	21.4	0.15
940611	0400	0.57	0.113	0.113	8.87	8.87	-32.0	-12.0	-33.0	34.7	34.1	24.0	0.17
940611	0700	0.60	0.123	0.113	8.16	8.87	-14.0	-16.0	-34.5	40.2	33.0	22.5	0.16
940611	1000	0.63	0.201	0.220	4.98	4.54	-60.0	-20.0	-29.6	38.8	31.0	27.1	0.15
940611	1300	0.72	0.210	0.220	4.75	4.54	-50.0	-50.0	-43.2	34.9	29.5	27.3	0.18
940611	1600	0.75	0.210	0.210	4.75	4.75	-46.0	-46.0	-38.9	31.2	27.6	23.7	0.17
940611	1900	0.94	0.181	0.171	5.52	5.83	-42.0	-40.0	-37.9	28.8	28.5	26.6	0.15
940611	2200	0.82	0.181	0.171	5.52	5.83	-46.0	-44.0	-39.8	32.9	31.5	28.7	0.14

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940612	0100	0.77	0.171	0.171	5.83	5.83	-42.0	-12.0	-32.9	33.6	32.0	32.0	0.12
940612	0400	0.79	0.181	0.171	5.52	5.83	-42.0	-40.0	-31.7	32.7	30.3	27.8	0.13
940612	0700	0.85	0.181	0.171	5.52	5.83	-48.0	-46.0	-39.8	33.9	31.0	31.0	0.13
940612	1000	0.77	0.171	0.171	5.83	5.83	-48.0	-46.0	-38.3	35.2	33.2	32.1	0.13
940612	1300	0.70	0.162	0.171	6.19	5.83	-44.0	-44.0	-36.6	35.0	33.0	30.3	0.14
940612	1600	0.73	0.181	0.171	5.52	5.83	-48.0	-44.0	-33.4	33.6	30.4	30.6	0.15
940612	1900	0.81	0.171	0.162	5.83	6.19	-34.0	-36.0	-27.9	31.1	28.7	25.9	0.18
940612	2200	0.75	0.162	0.162	6.19	6.19	-10.0	-38.0	-29.1	31.8	29.8	27.7	0.18
940613	0100	0.69	0.152	0.152	6.59	6.59	-4.0	-36.0	-25.0	34.9	32.2	31.1	0.15
940613	0400	0.76	0.152	0.152	6.59	6.59	-6.0	-34.0	-27.8	32.6	30.9	24.3	0.14
940613	0700	0.78	0.181	0.171	5.52	5.83	-34.0	-32.0	-25.6	34.1	30.7	28.0	0.18
940613	1000	0.77	0.162	0.162	6.19	6.19	-44.0	-42.0	-33.0	35.8	32.5	28.4	0.18
940613	1300	0.73	0.152	0.152	6.59	6.59	-40.0	-40.0	-32.1	34.5	28.7	29.1	0.15
940613	1600	0.66	0.171	0.152	5.83	6.59	-40.0	-40.0	-27.4	33.8	27.5	31.8	0.16
940613	1900	0.66	0.162	0.171	6.19	5.83	-42.0	-42.0	-30.9	32.5	27.7	22.2	0.18
940613	2200	0.62	0.171	0.171	5.83	5.83	-46.0	-44.0	-37.7	31.6	28.0	22.4	0.19
940614	0100	0.65	0.171	0.171	5.83	5.83	-42.0	-40.0	-37.0	32.5	29.0	29.3	0.17
940614	0400	0.68	0.191	0.171	5.24	5.83	-42.0	-42.0	-34.9	31.7	24.9	21.9	0.16
940614	0700	0.68	0.181	0.171	5.52	5.83	-44.0	-32.0	-31.5	35.3	28.2	26.1	0.16
940614	1300	0.56	0.191	0.132	5.24	7.56	-50.0	-34.0	-27.3	38.2	28.5	25.1	0.17
940614	1600	0.54	0.123	0.132	8.16	7.56	-10.0	-38.0	-22.7	35.7	31.0	30.4	0.16
940614	1900	0.52	0.142	0.142	7.04	7.04	2.0	-28.0	-19.8	34.9	29.8	29.2	0.19
940614	2200	0.48	0.142	0.132	7.04	7.56	-38.0	-38.0	-29.2	36.4	29.7	26.7	0.19
940615	0100	0.46	0.113	0.113	8.87	8.87	-12.0	-12.0	-23.3	35.3	28.6	22.6	0.20
940615	0400	0.47	0.123	0.123	8.16	8.16	0.0	-12.0	-19.3	34.0	27.7	22.5	0.18
940615	0700	0.50	0.123	0.123	8.16	8.16	0.0	0.0	-17.7	33.8	26.6	22.2	0.19
940615	1300	0.50	0.123	0.113	8.16	8.87	-10.0	-10.0	-15.7	32.0	27.2	22.4	0.21
940615	1600	0.46	0.123	0.123	8.16	8.16	-12.0	-12.0	-11.5	29.0	28.3	23.8	0.19
940615	1900	0.47	0.132	0.123	7.56	8.16	-12.0	-12.0	-13.8	29.2	27.4	26.6	0.19
940615	2200	0.45	0.113	0.123	8.87	8.16	-8.0	-14.0	-18.5	30.3	28.0	27.5	0.21
940616	0100	0.44	0.132	0.113	7.56	8.87	-16.0	-16.0	-18.5	33.5	28.8	23.6	0.22
940616	0400	0.44	0.123	0.123	8.16	8.16	0.0	-12.0	-17.9	31.9	29.1	25.6	0.19
940616	0700	0.48	0.123	0.123	8.16	8.16	0.0	-20.0	-13.0	30.5	28.7	27.0	0.18
940616	1000	0.49	0.113	0.123	8.87	8.16	2.0	-12.0	-13.6	31.2	28.4	29.3	0.23
940616	1300	0.46	0.123	0.123	8.16	8.16	-34.0	-34.0	-25.8	32.6	31.0	33.4	0.21
940616	1600	0.42	0.123	0.132	8.16	7.56	-6.0	-12.0	-19.2	31.9	30.1	28.6	0.21
940616	1900	0.42	0.123	0.123	8.16	8.16	-4.0	-14.0	-21.7	32.6	30.7	28.9	0.25
940616	2200	0.43	0.083	0.132	11.98	7.56	-10.0	-14.0	-20.3	29.9	30.3	29.1	0.21
940617	0100	0.42	0.093	0.123	10.72	8.16	0.0	0.0	-15.3	32.8	31.8	30.5	0.22
940617	0400	0.44	0.093	0.093	10.72	10.72	-4.0	-4.0	-13.0	32.0	28.7	20.9	0.24
940617	0700	0.46	0.093	0.093	10.72	10.72	-8.0	-14.0	-18.0	27.5	26.7	17.2	0.26
940617	1000	0.48	0.103	0.093	9.71	10.72	-10.0	-10.0	-15.8	28.5	28.8	22.5	0.24
940617	1300	0.47	0.103	0.093	9.71	10.72	-14.0	-12.0	-16.4	32.2	30.4	24.2	0.23
940617	1600	0.51	0.093	0.093	10.72	10.72	-4.0	-36.0	-31.8	36.9	28.4	24.5	0.24
940617	1900	0.49	0.093	0.093	10.72	10.72	0.0	-38.0	-25.2	36.1	26.0	26.3	0.25
940617	2200	0.53	0.113	0.113	8.87	8.87	-12.0	-36.0	-22.2	33.4	28.8	27.8	0.23
940618	0100	0.57	0.103	0.103	9.71	9.71	-10.0	-14.0	-21.9	32.6	30.8	25.0	0.21
940618	0400	0.58	0.103	0.093	9.71	10.72	-12.0	-34.0	-24.4	30.8	28.9	24.0	0.22
940618	0700	0.60	0.103	0.103	9.71	9.71	-10.0	-20.0	-21.8	29.8	26.2	22.9	0.18
940618	1000	0.68	0.132	0.103	7.56	9.71	-24.0	-34.0	-21.9	27.0	23.0	22.1	0.15
940618	1300	0.63	0.123	0.093	8.16	10.72	-36.0	-36.0	-23.6	31.6	27.5	29.0	0.22
940618	1600	0.60	0.132	0.093	7.56	10.72	-36.0	-36.0	-22.7	32.0	27.0	33.7	0.21
940618	1900	0.64	0.142	0.093	7.04	10.72	-36.0	-36.0	-26.4	28.6	25.3	25.7	0.20
940618	2200	0.66	0.142	0.093	7.04	10.72	-22.0	-34.0	-28.3	29.3	25.9	29.9	0.19

(Sheet 3 of 68)

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940619	0100	0.64	0.152	0.093	6.59	10.72	-38.0	-38.0	-28.8	29.2	25.5	29.8	0.18
940619	0400	0.60	0.162	0.093	6.19	10.72	-40.0	-40.0	-29.1	32.9	26.6	28.6	0.20
940619	0700	0.59	0.162	0.093	6.19	10.72	-40.0	-38.0	-28.5	31.2	25.0	25.0	0.18
940619	1000	0.61	0.171	0.093	5.83	10.72	-40.0	-36.0	-30.2	29.9	23.8	25.9	0.20
940619	1300	0.61	0.093	0.093	10.72	10.72	-18.0	-22.0	-29.6	31.1	24.2	27.9	0.20
940619	1600	0.54	0.093	0.093	10.72	10.72	-2.0	-20.0	-30.1	30.1	27.0	23.9	0.22
940619	1900	0.50	0.093	0.093	10.72	10.72	-10.0	-16.0	-25.1	28.2	25.6	25.7	0.21
940619	2200	0.46	0.103	0.093	9.71	10.72	-20.0	-30.0	-26.5	28.5	24.8	26.8	0.22
940620	0100	0.46	0.093	0.093	10.72	10.72	-16.0	-36.0	-29.0	30.8	26.2	30.3	0.30
940620	0400	0.45	0.093	0.083	10.72	11.98	-22.0	-38.0	-28.6	32.3	24.2	27.3	0.22
940620	0700	0.43	0.083	0.083	11.98	11.98	-30.0	-34.0	-27.3	30.4	26.7	27.8	0.24
940620	1000	0.45	0.093	0.093	10.72	10.72	-24.0	-34.0	-27.4	28.4	25.9	24.1	0.27
940620	1300	0.47	0.123	0.103	8.16	9.71	-22.0	-34.0	-25.6	29.2	25.6	24.8	0.26
940620	1600	0.45	0.093	0.093	10.72	10.72	-20.0	-38.0	-27.9	31.4	28.0	19.8	0.25
940620	1900	0.46	0.123	0.083	8.16	11.98	-38.0	-38.0	-10.8	37.0	28.7	27.3	0.34
940620	2200	0.52	0.220	0.083	4.54	11.98	56.0	-36.0	2.2	80.6	24.7	23.6	0.21
940621	0100	0.61	0.123	0.113	8.16	8.87	-38.0	-38.0	6.1	80.6	35.1	27.5	0.19
940621	0400	0.85	0.132	0.171	7.56	5.83	-42.0	56.0	18.2	75.0	26.7	22.8	0.19
940621	0700	0.77	0.123	0.171	8.16	5.83	-40.0	40.0	7.4	63.5	27.3	18.5	0.21
940621	1000	0.73	0.123	0.123	8.16	8.16	-38.0	40.0	2.7	58.0	28.3	19.3	0.16
940621	1300	0.68	0.171	0.171	5.83	5.83	20.0	18.0	3.0	50.3	35.0	16.9	0.19
940621	1600	0.72	0.113	0.113	8.87	8.87	6.0	6.0	2.4	44.9	31.8	20.2	0.22
940621	1900	0.67	0.113	0.113	8.87	8.87	4.0	4.0	-9.8	42.9	32.5	11.5	0.26
940621	2200	0.61	0.103	0.103	9.71	9.71	8.0	6.0	-7.4	40.1	30.8	20.1	0.19
940622	0100	0.58	0.132	0.113	7.56	8.87	-36.0	4.0	-12.4	38.5	35.5	28.7	0.19
940622	0400	0.54	0.113	0.123	8.87	8.16	4.0	4.0	-17.0	36.8	38.7	32.3	0.24
940622	0700	0.52	0.132	0.083	7.56	11.98	-14.0	-26.0	-18.0	35.1	36.1	26.8	0.24
940622	1000	0.59	0.298	0.083	3.35	11.98	56.0	56.0	9.0	61.5	27.7	30.3	0.25
940622	1300	0.63	0.289	0.083	3.47	11.98	62.0	62.0	15.8	69.1	26.8	28.8	0.27
940622	1600	0.55	0.083	0.083	11.98	11.98	-2.0	-2.0	7.3	53.8	33.0	28.8	0.19
940622	1900	0.50	0.083	0.083	11.98	11.98	-24.0	-38.0	-7.3	48.3	31.6	29.4	0.20
940622	2200	0.45	0.123	0.083	8.16	11.98	-20.0	-34.0	-16.3	36.9	35.4	32.3	0.26
940623	0100	0.43	0.132	0.083	7.56	11.98	-32.0	-32.0	-27.7	32.1	33.0	28.3	0.23
940623	0400	0.43	0.152	0.083	6.59	11.98	-32.0	-34.0	-27.3	33.8	33.3	31.2	0.22
940623	0700	0.41	0.123	0.123	8.16	8.16	-34.0	-34.0	-25.9	34.0	31.9	31.0	0.23
940623	1000	0.48	0.318	0.318	3.15	3.15	-56.0	-56.0	-35.8	39.6	24.3	10.5	0.24
940623	1300	0.48	0.289	0.093	3.47	10.72	-54.0	-54.0	-38.2	36.8	20.0	26.2	0.30
940623	1600	0.55	0.259	0.269	3.86	3.72	-52.0	-52.0	-41.8	27.0	15.1	7.0	0.28
940623	1900	0.47	0.210	0.132	4.75	7.56	-52.0	-54.0	-41.0	31.3	15.2	18.4	0.22
940623	2200	0.40	0.132	0.083	7.56	11.98	-22.0	-36.0	-36.0	34.1	21.5	29.1	0.26
940624	0100	0.38	0.181	0.083	5.52	11.98	-40.0	-38.0	-32.9	30.6	22.1	27.9	0.25
940624	0400	0.40	0.201	0.093	4.98	10.72	-46.0	-38.0	-35.1	31.2	22.4	31.9	0.24
940624	0700	0.36	0.230	0.083	4.35	11.98	-54.0	-52.0	-35.0	35.9	23.4	26.2	0.22
940624	1000	0.35	0.171	0.083	5.83	11.98	-50.0	-52.0	-36.1	38.2	21.0	30.0	0.22
940624	1300	0.40	0.132	0.132	7.56	7.56	-38.0	-52.0	-39.6	33.5	18.6	20.1	0.21
940624	1600	0.45	0.181	0.142	5.52	7.04	-50.0	-58.0	-45.9	28.1	12.0	13.7	0.24
940624	1900	0.46	0.250	0.132	4.01	7.56	-60.0	-60.0	-46.6	26.6	12.3	16.0	0.22
940624	2200	0.45	0.132	0.132	7.56	7.56	-40.0	-40.0	-45.3	23.4	11.8	6.3	0.24
940625	0100	0.39	0.132	0.132	7.56	7.56	-38.0	-40.0	-42.0	25.3	13.5	6.3	0.26
940625	0400	0.45	0.132	0.132	7.56	7.56	-40.0	-40.0	-42.5	18.0	10.7	6.4	0.29
940625	0700	0.41	0.132	0.123	7.56	8.16	-40.0	-40.0	-44.5	20.6	11.5	7.2	0.25
940625	1000	0.38	0.142	0.123	7.04	8.16	-42.0	-42.0	-42.3	22.0	12.3	10.0	0.26
940625	1300	0.37	0.123	0.123	8.16	8.16	-40.0	-40.0	-40.0	21.8	12.5	9.4	0.26
940625	1600	0.46	0.132	0.132	7.56	7.56	-40.0	-40.0	-44.4	22.6	12.8	14.1	0.25

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940625	1900	0.49	0.210	0.132	4.75	7.56	-54.0	-56.0	-48.2	20.6	11.5	12.9	0.20
940625	2200	0.42	0.123	0.123	8.16	8.16	-40.0	-60.0	-47.3	26.0	13.1	12.5	0.22
940626	0100	0.30	0.123	0.123	8.16	8.16	-38.0	-38.0	-38.2	28.9	17.7	8.3	0.30
940626	0400	0.32	0.132	0.132	7.56	7.56	-38.0	-40.0	-39.7	32.6	21.8	30.8	0.29
940626	0700	0.33	0.132	0.132	7.56	7.56	-40.0	-40.0	-39.9	30.8	25.8	11.9	0.28
940626	1000	0.32	0.132	0.132	7.56	7.56	-42.0	-42.0	-42.0	29.6	20.2	8.9	0.27
940626	1300	0.35	0.113	0.113	8.87	8.87	-24.0	-40.0	-44.9	34.2	17.9	15.5	0.25
940626	1600	0.60	0.240	0.240	4.17	4.17	-58.0	-60.0	-52.6	21.0	10.8	6.7	0.24
940626	1900	0.64	0.240	0.240	4.17	4.17	-58.0	-58.0	-51.9	15.8	10.4	7.2	0.27
940626	2200	0.48	0.308	0.103	3.25	9.71	-64.0	-62.0	-48.2	24.5	11.8	16.5	0.23
940627	0100	0.44	0.318	0.103	3.15	9.71	-60.0	-60.0	-44.8	25.5	11.9	16.9	0.25
940627	0400	0.42	0.103	0.113	9.71	8.87	-24.0	-60.0	-40.0	30.8	13.1	13.2	0.25
940627	0700	0.55	0.269	0.113	3.72	8.87	-56.0	-56.0	-46.2	22.6	12.8	16.4	0.27
940627	1000	0.50	0.230	0.113	4.35	8.87	-56.0	-56.0	-41.7	27.1	11.9	17.9	0.25
940627	1300	0.64	0.269	0.113	3.72	8.87	-58.0	-56.0	-44.2	22.6	10.4	16.2	0.21
940627	1600	0.68	0.240	0.113	4.17	8.87	-52.0	-52.0	-43.5	21.2	10.1	12.1	0.22
940627	1900	0.59	0.142	0.142	7.04	7.04	-38.0	-40.0	-41.2	21.0	12.3	10.0	0.23
940627	2200	0.58	0.142	0.123	7.04	8.16	-40.0	-52.0	-41.5	23.3	13.3	17.3	0.21
940628	0100	0.52	0.142	0.113	7.04	8.87	-40.0	-40.0	-38.9	24.2	15.1	17.1	0.23
940628	0400	0.48	0.152	0.113	6.59	8.87	-42.0	-40.0	-38.4	26.0	15.5	17.0	0.18
940628	1300	0.55	0.162	0.142	6.19	7.04	-46.0	-48.0	-44.7	25.9	14.8	12.8	0.20
940628	1600	0.69	0.162	0.162	6.19	6.19	-44.0	-42.0	-46.5	22.1	13.1	8.5	0.17
940628	1900	0.68	0.152	0.162	6.59	6.19	-42.0	-42.0	-45.7	21.3	13.9	12.2	0.20
940628	2200	0.69	0.162	0.162	6.19	6.19	-42.0	-42.0	-45.6	18.8	14.3	9.7	0.19
940629	0100	0.62	0.152	0.152	6.59	6.59	-42.0	-42.0	-46.4	21.0	14.9	9.6	0.20
940629	0400	0.59	0.142	0.113	7.04	8.87	-42.0	-40.0	-45.3	24.5	15.6	17.8	0.19
940629	0700	0.68	0.142	0.142	7.04	7.04	-40.0	-60.0	-47.6	25.4	13.2	12.5	0.23
940629	1000	0.57	0.142	0.142	7.04	7.04	-44.0	-44.0	-43.6	23.5	14.0	13.4	0.23
940629	1300	0.57	0.142	0.142	7.04	7.04	-42.0	-42.0	-42.9	20.4	14.7	7.3	0.25
940629	1600	0.63	0.298	0.113	3.35	8.87	-64.0	-62.0	-47.4	28.6	12.5	14.3	0.24
940629	1900	0.67	0.113	0.113	8.87	8.87	-26.0	-58.0	-44.4	25.6	12.1	10.9	0.25
940629	2200	0.66	0.132	0.132	7.56	7.56	-40.0	-40.0	-45.3	22.5	12.3	12.3	0.23
940630	0100	0.56	0.142	0.123	7.04	8.16	-42.0	-40.0	-42.6	22.2	15.6	16.2	0.22
940630	0400	0.51	0.132	0.113	7.56	8.87	-40.0	-40.0	-34.6	24.9	18.7	19.2	0.26
940630	1000	0.52	0.152	0.123	6.59	8.16	-42.0	-42.0	-35.7	25.2	19.4	20.1	9.99
940630	1300	0.54	0.162	0.142	6.19	7.04	-44.0	-42.0	-38.9	24.9	17.0	17.3	9.99
940630	1600	0.53	0.142	0.113	7.04	8.87	-40.0	-40.0	-41.5	27.8	16.9	18.9	9.99
940630	1900	0.57	0.142	0.113	7.04	8.87	-40.0	-40.0	-40.9	26.9	16.0	20.1	0.23
940630	2200	0.57	0.152	0.152	6.59	6.59	-40.0	-40.0	-38.9	23.2	16.0	13.1	0.24
940701	0100	0.54	0.132	0.113	7.56	8.87	-40.0	-42.0	-38.2	28.8	17.3	16.1	0.25
940701	0400	0.52	0.162	0.113	6.19	8.87	-46.0	-42.0	-38.4	31.4	17.9	18.4	0.26
940701	0700	0.53	0.113	0.113	8.87	8.87	-16.0	-38.0	-34.5	31.9	21.4	19.6	0.25
940701	1000	0.53	0.113	0.113	8.87	8.87	-36.0	-38.0	-35.4	28.4	21.8	21.6	0.24
940701	1300	0.60	0.113	0.113	8.87	8.87	-26.0	-26.0	-39.4	29.7	19.4	19.5	0.24
940701	1600	0.57	0.113	0.113	8.87	8.87	-18.0	-38.0	-39.0	31.7	21.1	24.1	0.26
940701	1900	0.55	0.123	0.123	8.16	8.16	-36.0	-36.0	-36.9	31.6	24.8	34.0	0.25
940701	2200	0.54	0.113	0.113	8.87	8.87	-24.0	-38.0	-38.1	31.4	21.9	23.1	0.27
940702	0100	0.53	0.123	0.113	8.16	8.87	-38.0	-38.0	-35.5	27.4	21.9	25.3	0.26
940702	0400	0.54	0.113	0.113	8.87	8.87	-22.0	-38.0	-34.2	29.0	22.2	21.7	0.26
940702	0700	0.54	0.113	0.113	8.87	8.87	-28.0	-38.0	-32.5	28.8	23.5	19.1	0.28
940702	1000	0.55	0.113	0.113	8.87	8.87	-24.0	-38.0	-31.4	29.0	25.6	23.7	0.26
940703	1300	0.51	0.142	0.123	7.04	8.16	-40.0	-24.0	-36.6	30.3	25.3	26.4	0.30

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940703	1900	0.50	0.142	0.132	7.04	7.56	-38.0	-60.0	-41.5	35.3	16.7	21.9	0.28
940703	2200	0.46	0.132	0.113	7.56	8.87	-38.0	-38.0	-36.7	28.8	19.0	21.6	0.27
940704	0100	0.45	0.123	0.103	8.16	9.71	-38.0	-38.0	-33.0	30.6	22.2	20.4	0.29
940704	0400	0.48	0.113	0.103	8.87	9.71	-32.0	-38.0	-19.4	47.2	46.0	26.4	0.24
940704	0700	0.45	0.123	0.113	8.16	8.87	-36.0	-40.0	-16.0	44.2	45.4	28.6	0.22
940704	1000	0.42	0.113	0.113	8.87	8.87	-36.0	-38.0	-28.9	40.1	37.8	23.2	0.23
940704	1300	0.40	0.123	0.123	8.16	8.16	-26.0	-28.0	-36.2	29.1	25.1	14.6	0.26
940704	1600	0.37	0.123	0.123	8.16	8.16	-38.0	-38.0	-38.0	28.2	23.2	21.0	0.23
940704	1900	0.37	0.123	0.113	8.16	8.87	-38.0	-38.0	-39.0	29.1	25.4	28.6	0.23
940704	2200	0.40	0.132	0.123	7.56	8.16	-28.0	-40.0	-40.6	32.0	27.6	20.3	0.22
940705	0100	0.42	0.123	0.113	8.16	8.87	-38.0	-40.0	-47.7	38.2	32.2	28.8	0.25
940705	0400	0.41	0.103	0.123	9.71	8.16	-24.0	-40.0	-42.2	32.8	30.3	23.0	0.28
940705	0700	0.32	0.113	0.113	8.87	8.87	-24.0	-38.0	-32.3	30.1	29.2	18.5	0.30
940705	1000	0.31	0.113	0.113	8.87	8.87	-26.0	-28.0	-28.0	29.8	29.7	16.6	0.32
940705	1300	0.33	0.123	0.123	8.16	8.16	-40.0	-40.0	-26.0	30.1	26.8	19.9	0.33
940705	1600	0.35	0.113	0.113	8.87	8.87	-22.0	-40.0	-18.4	40.1	24.8	18.1	0.26
940705	1900	0.35	0.123	0.113	8.16	8.87	-22.0	-24.0	-19.4	43.5	28.9	24.9	0.25
940705	2200	0.36	0.113	0.113	8.87	8.87	-24.0	-38.0	-10.0	48.8	35.0	16.4	0.25
940706	0100	0.37	0.123	0.113	8.16	8.87	-24.0	-24.0	-13.3	44.2	37.8	20.8	0.24
940706	0400	0.39	0.113	0.113	8.87	8.87	-20.0	-26.0	-5.8	44.5	36.0	19.7	0.23
940706	1000	0.37	0.113	0.113	8.87	8.87	-24.0	-24.0	-13.2	39.0	35.1	16.5	0.27
940706	1300	0.40	0.113	0.113	8.87	8.87	-22.0	-38.0	-21.1	28.5	31.4	15.4	0.23
940706	1600	0.40	0.103	0.113	9.71	8.87	-20.0	-22.0	-26.7	24.4	27.2	16.4	0.24
940706	1900	0.43	0.123	0.113	8.16	8.87	-24.0	-24.0	-37.2	26.9	19.6	17.3	0.23
940706	2200	0.40	0.113	0.113	8.87	8.87	-20.0	-36.0	-36.6	29.3	18.3	16.6	0.27
940707	0100	0.37	0.113	0.113	8.87	8.87	-24.0	-38.0	-36.4	23.3	20.9	16.8	0.33
940707	0400	0.37	0.113	0.113	8.87	8.87	-20.0	-38.0	-30.9	23.5	21.6	19.9	0.33
940707	0700	0.39	0.103	0.113	9.71	8.87	-34.0	-40.0	-34.7	23.9	23.7	20.8	0.31
940707	1000	0.44	0.113	0.113	8.87	8.87	-24.0	-40.0	-31.6	22.2	20.2	17.2	0.28
940707	1300	0.47	0.113	0.113	8.87	8.87	-20.0	-22.0	-25.6	23.4	20.3	19.8	0.30
940707	1600	0.58	0.113	0.113	8.87	8.87	-32.0	-56.0	-39.6	29.4	14.4	19.1	0.33
940707	1900	0.53	0.113	0.113	8.87	8.87	-30.0	-38.0	-38.1	26.9	17.6	20.2	0.32
940707	2200	0.46	0.113	0.113	8.87	8.87	-24.0	-28.0	-32.3	22.9	19.5	17.1	0.26
940708	0100	0.43	0.113	0.113	8.87	8.87	-20.0	-20.0	-25.9	20.9	20.4	16.5	0.29
940708	0400	0.42	0.113	0.113	8.87	8.87	-38.0	-36.0	-32.5	23.0	22.1	18.5	0.32
940708	0700	0.40	0.113	0.113	8.87	8.87	-28.0	-28.0	-33.9	23.3	22.1	16.0	0.30
940708	1000	0.41	0.113	0.113	8.87	8.87	-24.0	-26.0	-30.7	25.1	23.7	20.7	0.30
940708	1300	0.42	0.113	0.113	8.87	8.87	-20.0	-22.0	-27.7	22.9	21.0	18.2	0.31
940708	1600	0.43	0.113	0.113	8.87	8.87	-20.0	-36.0	-34.5	24.0	19.5	20.6	0.29
940708	1900	0.45	0.113	0.113	8.87	8.87	-22.0	-40.0	-34.4	26.6	16.8	19.0	0.31
940708	2200	0.40	0.113	0.113	8.87	8.87	-28.0	-26.0	-27.3	22.9	21.3	21.1	0.38
940709	0100	0.37	0.113	0.113	8.87	8.87	-24.0	-36.0	-27.3	22.2	20.6	18.6	0.37
940709	0400	0.36	0.113	0.113	8.87	8.87	-26.0	-38.0	-27.6	28.2	24.1	17.8	0.32
940709	0700	0.36	0.113	0.113	8.87	8.87	-28.0	-38.0	-28.4	30.4	25.6	22.2	0.31
940709	1000	0.36	0.113	0.113	8.87	8.87	-24.0	-28.0	-32.4	26.7	24.9	23.8	0.29
940709	1300	0.35	0.113	0.113	8.87	8.87	-20.0	-24.0	-24.3	26.2	22.9	19.2	0.38
940709	1600	0.38	0.123	0.123	8.16	8.16	-36.0	-36.0	-28.2	27.1	21.5	17.8	0.24
940709	1900	0.41	0.113	0.113	8.87	8.87	-28.0	-28.0	-33.0	29.3	18.7	14.3	0.30
940709	2200	0.37	0.123	0.074	8.16	13.56	-38.0	-38.0	-31.1	26.7	24.1	24.3	0.43
940710	0100	0.37	0.074	0.074	13.56	13.56	-22.0	-36.0	-30.1	28.6	27.5	26.6	0.30
940710	0400	0.38	0.074	0.074	13.56	13.56	-28.0	-36.0	-31.1	28.2	25.4	25.2	0.45
940710	0700	0.38	0.123	0.074	8.16	13.56	-40.0	-40.0	-25.0	35.4	33.2	37.1	0.41
940710	1000	0.37	0.074	0.074	13.56	13.56	0.0	-40.0	-26.1	35.4	28.2	31.9	0.44

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	χ
940710	1300	0.38	0.074	0.074	13.56	13.56	-2.0	-20.0	-27.0	35.6	28.1	29.2	0.30
940710	1600	0.38	0.074	0.074	13.56	13.56	-20.0	-22.0	-28.1	33.8	26.5	30.3	0.31
940710	1900	0.39	0.074	0.074	13.56	13.56	-32.0	-38.0	-23.1	39.4	37.5	29.2	0.35
940710	2200	0.40	0.074	0.074	13.56	13.56	-2.0	-10.0	-3.5	39.4	38.1	28.7	0.33
940711	0100	0.38	0.074	0.074	13.56	13.56	-12.0	-12.0	-22.4	31.3	27.8	25.9	0.39
940711	0400	0.37	0.074	0.074	13.56	13.56	0.0	-38.0	-18.8	35.3	32.6	33.0	0.33
940711	0700	0.38	0.074	0.074	13.56	13.56	-4.0	-12.0	-15.7	36.4	30.4	25.6	0.30
940711	1000	0.62	0.298	0.298	3.35	3.35	46.0	48.0	26.2	46.8	17.6	7.7	0.35
940711	1300	0.61	0.240	0.074	4.17	13.56	44.0	44.0	25.0	42.8	19.8	28.5	0.34
940711	1600	0.58	0.220	0.074	4.54	13.56	42.0	42.0	19.3	49.8	23.3	27.8	0.30
940711	1900	0.53	0.210	0.074	4.75	13.56	40.0	40.0	9.3	51.4	26.8	30.8	0.20
940711	2200	0.51	0.201	0.074	4.98	13.56	30.0	30.0	12.7	47.4	28.6	28.0	0.27
940712	0100	0.50	0.201	0.083	4.98	11.98	40.0	40.0	6.8	51.1	29.7	28.8	0.32
940712	0400	0.48	0.093	0.083	10.72	11.98	-10.0	18.0	6.3	44.0	29.4	29.7	0.30
940712	0700	0.46	0.083	0.083	11.98	11.98	-6.0	6.0	3.8	43.5	32.5	27.0	0.32
940712	1300	0.45	0.083	0.083	11.98	11.98	-22.0	-4.0	-6.2	36.9	41.7	24.1	0.31
940712	1600	0.48	0.083	0.083	11.98	11.98	-34.0	-10.0	-23.8	40.3	36.2	27.6	0.31
940712	1900	0.47	0.083	0.083	11.98	11.98	-8.0	-8.0	-14.5	35.3	32.5	23.1	0.35
940712	2200	0.41	0.093	0.083	10.72	11.98	-12.0	-8.0	-12.3	34.3	34.1	28.8	0.29
940713	0100	0.40	0.083	0.083	11.98	11.98	-26.0	-20.0	-19.7	32.9	34.5	26.2	0.36
940713	0400	0.43	0.083	0.083	11.98	11.98	-8.0	-8.0	-10.8	31.6	32.5	26.5	0.25
940713	0700	0.41	0.103	0.083	9.71	11.98	-34.0	-10.0	-25.7	33.8	34.2	28.6	0.34
940713	1000	0.42	0.093	0.093	10.72	10.72	-34.0	-32.0	-24.1	32.7	31.2	26.2	0.29
940713	1300	0.40	0.093	0.093	10.72	10.72	-10.0	-12.0	-20.7	34.0	30.0	24.4	0.26
940713	1600	0.40	0.093	0.093	10.72	10.72	-12.0	-34.0	-26.1	33.7	24.7	24.7	0.27
940713	1900	0.40	0.093	0.093	10.72	10.72	-8.0	-62.0	-28.2	43.2	25.0	28.7	0.39
940713	2200	0.39	0.093	0.093	10.72	10.72	-4.0	-36.0	-27.2	37.4	27.5	30.5	0.41
940714	0100	0.35	0.083	0.093	11.98	10.72	-6.0	-34.0	-20.6	33.3	29.0	28.5	0.35
940714	0400	0.34	0.093	0.093	10.72	10.72	-12.0	-12.0	-25.8	29.4	27.4	22.5	0.40
940714	0700	0.35	0.093	0.093	10.72	10.72	-12.0	-16.0	-27.1	31.6	27.0	24.3	0.42
940714	1000	0.35	0.093	0.093	10.72	10.72	-26.0	-36.0	-28.2	32.0	28.2	26.3	0.32
940714	1300	0.30	0.093	0.093	10.72	10.72	-36.0	-36.0	-32.1	31.4	27.4	28.1	0.36
940714	1600	0.36	0.240	0.093	4.17	10.72	-58.0	-60.0	-40.2	43.8	20.4	34.4	0.32
940714	1900	0.37	0.093	0.093	10.72	10.72	-34.0	-60.0	-42.5	39.3	18.5	28.0	0.41
940714	2200	0.33	0.093	0.093	10.72	10.72	-8.0	-38.0	-30.9	37.6	23.1	30.3	0.40
940715	0100	0.30	0.093	0.093	10.72	10.72	-26.0	-40.0	-30.9	35.7	27.6	29.9	0.41
940715	0400	0.30	0.103	0.093	9.71	10.72	-34.0	-36.0	-28.0	29.7	26.4	24.7	0.34
940715	0700	0.30	0.093	0.093	10.72	10.72	-36.0	-38.0	-39.0	32.9	28.4	31.1	0.39
940715	1000	0.32	0.093	0.093	10.72	10.72	-8.0	-40.0	-35.1	38.3	25.6	29.6	0.34
940715	1300	0.32	0.093	0.093	10.72	10.72	-10.0	-40.0	-43.3	43.3	26.5	27.3	0.28
940715	1600	0.33	0.093	0.093	10.72	10.72	-28.0	-36.0	-39.9	34.1	22.8	26.1	0.24
940715	1900	0.33	0.103	0.093	9.71	10.72	-26.0	-38.0	-39.2	37.4	22.5	29.8	0.32
940715	2200	0.28	0.103	0.103	9.71	9.71	-14.0	-36.0	-33.8	36.9	30.1	26.9	0.37
940716	0100	0.29	0.103	0.093	9.71	10.72	-36.0	-38.0	-39.7	36.8	36.3	30.2	0.29
940716	0400	0.31	0.093	0.093	10.72	10.72	-16.0	-40.0	-32.0	39.4	37.7	23.4	0.27
940716	0700	0.34	0.171	0.093	5.83	10.72	-52.0	-52.0	-43.7	50.7	40.8	31.3	0.23
940716	1000	0.38	0.171	0.093	5.83	10.72	-54.0	-56.0	-47.2	48.6	37.8	26.6	0.22
940716	1300	0.35	0.162	0.103	6.19	9.71	-50.0	-56.0	-46.2	41.2	30.9	27.5	0.24
940716	1900	0.27	0.103	0.103	9.71	9.71	-28.0	-38.0	-24.6	40.8	36.5	27.4	0.40
940716	2200	0.29	0.103	0.103	9.71	9.71	-22.0	-38.0	-24.7	35.2	36.2	26.9	0.39
940717	0100	0.30	0.103	0.103	9.71	9.71	-38.0	-40.0	-33.6	36.8	38.8	24.5	0.29
940717	0400	0.34	0.103	0.103	9.71	9.71	-40.0	-40.0	-33.3	34.9	33.6	24.9	0.27
940717	0700	0.33	0.103	0.103	9.71	9.71	-36.0	-38.0	-37.1	34.8	36.2	24.2	0.33

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940717	1000	0.31	0.103	0.103	9.71	9.71	-38.0	-40.0	-38.6	30.6	33.5	25.2	0.38
940717	1300	0.30	0.103	0.103	9.71	9.71	-38.0	-40.0	-34.0	34.9	37.5	31.8	0.36
940718	1300	0.48	0.240	0.240	4.17	4.17	-58.0	-58.0	-52.1	24.2	15.7	9.4	0.19
940718	1600	0.33	0.103	0.103	9.71	9.71	-38.0	-40.0	-42.0	27.3	19.9	26.2	0.21
940718	1900	0.33	0.142	0.103	7.04	9.71	-40.0	-42.0	-41.3	32.6	34.4	28.6	0.23
940718	2200	0.34	0.113	0.103	8.87	9.71	-30.0	-48.0	-40.2	29.0	20.8	23.7	0.25
940719	0100	0.43	0.220	0.210	4.54	4.75	-56.0	-56.0	-49.1	25.3	17.5	11.1	0.19
940719	0400	0.39	0.210	0.201	4.75	4.98	-56.0	-54.0	-51.3	26.8	19.9	13.4	0.23
940719	0700	0.31	0.191	0.191	5.24	5.24	-50.0	-52.0	-46.0	32.2	20.7	11.4	0.27
940719	1000	0.30	0.132	0.113	7.56	8.87	-40.0	-40.0	-43.9	36.8	24.2	23.5	0.26
940719	1300	0.38	0.220	0.113	4.54	8.87	-58.0	-56.0	-47.2	33.3	26.9	23.9	0.23
940719	1600	0.63	0.162	0.162	6.19	6.19	-44.0	-42.0	-49.9	25.9	22.1	12.4	0.21
940719	1900	0.59	0.152	0.142	6.59	7.04	-44.0	-44.0	-47.6	20.4	17.2	13.1	0.21
940719	2200	0.57	0.142	0.142	7.04	7.04	-42.0	-42.0	-46.2	18.7	15.1	11.0	0.19
940720	0100	0.61	0.142	0.142	7.04	7.04	-44.0	-44.0	-47.0	20.0	17.4	13.2	0.21
940720	0400	0.62	0.142	0.142	7.04	7.04	-42.0	-44.0	-45.7	20.6	20.3	12.8	0.22
940720	0700	0.61	0.142	0.142	7.04	7.04	-42.0	-44.0	-45.8	23.2	21.6	18.5	0.21
940720	1000	0.64	0.152	0.152	6.59	6.59	-44.0	-44.0	-44.8	22.1	21.9	14.9	0.16
940720	1300	0.68	0.142	0.142	7.04	7.04	-40.0	-42.0	-44.5	22.8	21.7	22.5	0.22
940720	1600	0.68	0.142	0.142	7.04	7.04	-42.0	-42.0	-47.0	22.1	20.1	16.0	0.24
940720	1900	0.60	0.152	0.142	6.59	7.04	-44.0	-42.0	-46.9	24.1	18.7	19.4	0.22
940720	2200	0.55	0.142	0.142	7.04	7.04	-42.0	-44.0	-46.5	23.0	18.8	15.7	0.17
940721	0100	0.55	0.142	0.142	7.04	7.04	-40.0	-42.0	-43.4	24.5	21.3	16.2	0.18
940721	0400	0.64	0.142	0.152	7.04	6.59	-42.0	-42.0	-45.5	26.7	25.3	24.4	0.20
940721	0700	0.70	0.132	0.152	7.56	6.59	-42.0	-42.0	-45.2	23.5	22.0	16.6	0.19
940721	1000	0.65	0.142	0.142	7.04	7.04	-40.0	-42.0	-42.1	20.9	20.6	15.0	0.16
940721	1300	0.68	0.162	0.142	6.19	7.04	-44.0	-44.0	-46.3	21.8	17.3	20.9	0.24
940721	1600	0.72	0.142	0.142	7.04	7.04	-40.0	-56.0	-47.5	18.6	12.6	10.1	0.29
940721	1900	0.60	0.142	0.142	7.04	7.04	-42.0	-42.0	-45.3	18.0	15.8	14.1	0.22
940721	2200	0.50	0.152	0.142	6.59	7.04	-40.0	-42.0	-39.6	23.3	16.6	22.4	0.19
940722	0100	0.49	0.142	0.142	7.04	7.04	-38.0	-40.0	-40.6	22.9	16.9	15.9	0.19
940722	0400	0.57	0.191	0.181	5.24	5.52	-48.0	-42.0	-43.8	17.8	17.3	10.2	0.20
940722	0700	0.56	0.181	0.181	5.52	5.52	-44.0	-40.0	-40.8	19.6	18.5	11.4	0.18
940722	1000	0.46	0.123	0.132	8.16	7.56	-38.0	-40.0	-43.2	24.4	19.9	24.7	0.19
940722	1300	0.47	0.142	0.132	7.04	7.56	-36.0	-38.0	-43.1	25.1	16.0	19.2	0.21
940722	1600	0.52	0.269	0.132	3.72	7.56	-54.0	-56.0	-45.0	24.5	14.7	29.7	0.26
940722	1900	0.48	0.250	0.201	4.01	4.98	-56.0	-58.0	-47.7	23.8	15.1	15.7	0.25
940722	2200	0.37	0.152	0.132	6.59	7.56	-40.0	-40.0	-41.5	29.7	19.3	26.0	0.23
940723	0100	0.34	0.132	0.132	7.56	7.56	-36.0	-36.0	-36.5	26.0	20.1	23.4	0.23
940723	0400	0.37	0.152	0.132	6.59	7.56	-38.0	-38.0	-41.4	28.1	20.9	23.9	0.25
940723	0700	0.37	0.142	0.142	7.04	7.04	-40.0	-40.0	-41.3	31.7	20.3	23.1	0.28
940723	1000	0.36	0.181	0.123	5.52	8.16	-48.0	-38.0	-38.4	33.0	18.8	26.5	0.26
940723	1300	0.35	0.152	0.064	6.59	15.63	-40.0	-52.0	-39.1	32.9	17.8	21.7	0.24
940723	1600	0.50	0.230	0.191	4.35	5.24	-54.0	-54.0	-46.0	23.9	13.1	9.7	0.21
940723	1900	0.44	0.171	0.171	5.83	5.83	-48.0	-52.0	-45.6	25.5	17.3	10.2	0.26
940723	2200	0.41	0.220	0.113	4.54	8.87	-54.0	-58.0	-43.7	29.5	17.1	16.5	0.24
940724	0100	0.41	0.201	0.123	4.98	8.16	-54.0	-56.0	-39.9	33.6	16.9	19.6	0.22
940724	0400	0.43	0.123	0.123	8.16	8.16	-34.0	-52.0	-38.8	31.8	18.6	15.8	0.27
940724	0700	0.45	0.123	0.123	8.16	8.16	-36.0	-52.0	-41.1	30.5	18.2	14.9	0.26
940724	1000	0.41	0.162	0.113	6.19	8.87	-46.0	-44.0	-38.9	34.4	25.7	21.8	0.29
940724	1300	0.38	0.123	0.113	8.16	8.87	-38.0	-38.0	-35.8	34.5	28.3	23.1	0.29
940724	1600	0.39	0.123	0.123	8.16	8.16	-36.0	-38.0	-34.7	32.5	27.1	26.2	0.31
940724	1900	0.38	0.123	0.113	8.16	8.87	-38.0	-38.0	-35.1	31.1	27.2	25.6	0.35

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940724	2200	0.36	0.123	0.113	8.16	8.87	-38.0	-38.0	-34.0	31.6	27.2	20.8	0.28
940725	0100	0.36	0.123	0.113	8.16	8.87	-36.0	-36.0	-34.6	28.7	25.1	18.1	0.26
940725	0400	0.36	0.113	0.113	8.87	8.87	-34.0	-36.0	-33.3	29.8	22.8	19.6	0.37
940725	0700	0.38	0.123	0.123	8.16	8.16	-38.0	-40.0	-34.7	31.5	27.3	24.2	0.42
940725	1000	0.36	0.123	0.113	8.16	8.87	-38.0	-38.0	-36.2	30.2	26.5	23.3	0.34
940725	1300	0.49	0.279	0.289	3.59	3.47	-64.0	-64.0	-49.4	33.8	16.4	9.0	0.26
940725	1600	0.37	0.123	0.123	8.16	8.16	-34.0	-34.0	-32.9	27.7	22.3	18.3	0.36
940725	1900	0.39	0.123	0.113	8.16	8.87	-38.0	-38.0	-11.4	39.8	37.7	25.5	0.34
940725	2200	0.39	0.123	0.113	8.16	8.87	-40.0	-38.0	-31.6	38.3	25.3	22.1	0.30
940726	0100	0.37	0.103	0.113	9.71	8.87	-12.0	-14.0	-26.6	31.6	25.3	27.8	0.31
940726	0400	0.42	0.113	0.113	8.87	8.87	-12.0	-12.0	-21.4	30.6	24.0	24.1	0.28
940726	0700	0.40	0.113	0.113	8.87	8.87	-8.0	-10.0	-31.0	38.0	26.9	24.7	0.35
940726	1000	0.38	0.113	0.113	8.87	8.87	-8.0	-10.0	-28.0	37.4	25.2	25.0	0.33
940726	1300	0.41	0.113	0.113	8.87	8.87	-10.0	-10.0	-27.8	43.4	25.9	31.9	0.25
940726	1600	0.45	0.308	0.113	3.25	8.87	-66.0	-64.0	-45.1	47.0	20.5	34.4	0.26
940726	1900	0.48	0.230	0.113	4.35	8.87	-58.0	-60.0	-40.9	42.1	20.2	30.8	0.25
940726	2200	0.41	0.123	0.113	8.16	8.87	-36.0	-38.0	-38.6	40.2	24.8	32.5	0.24
940727	0100	0.40	0.132	0.113	7.56	8.87	-40.0	-38.0	-41.7	36.9	23.7	30.4	0.25
940727	0400	0.39	0.132	0.113	7.56	8.87	-36.0	-36.0	-35.9	33.0	26.0	31.7	0.27
940727	0700	0.40	0.132	0.132	7.56	7.56	-38.0	-40.0	-37.9	33.9	28.8	23.6	0.25
940727	1000	0.40	0.132	0.113	7.56	8.87	-40.0	-40.0	-44.6	35.4	25.6	33.9	0.22
940727	1300	0.40	0.132	0.132	7.56	7.56	-38.0	-64.0	-45.5	41.0	21.7	24.4	0.24
940727	1600	0.50	0.318	0.123	3.15	8.16	-62.0	-62.0	-49.0	29.2	13.3	16.1	0.32
940727	1900	0.52	0.318	0.132	3.15	7.56	-60.0	-60.0	-49.1	23.2	12.1	15.0	0.32
940727	2200	0.50	0.142	0.132	7.04	7.56	-44.0	-58.0	-48.8	21.7	11.2	14.4	0.25
940728	0100	0.45	0.132	0.132	7.56	7.56	-40.0	-40.0	-45.8	22.4	13.5	9.3	0.23
940728	0400	0.42	0.142	0.123	7.04	8.16	-42.0	-40.0	-43.6	23.7	15.1	11.1	0.22
940728	0700	0.41	0.142	0.132	7.04	7.56	-40.0	-40.0	-44.4	26.3	16.5	16.9	0.22
940728	1000	0.40	0.132	0.132	7.56	7.56	-40.0	-40.0	-43.4	27.5	19.8	16.9	0.22
940728	1300	0.40	0.132	0.123	7.56	8.16	-40.0	-40.0	-44.4	21.7	16.3	17.7	0.20
940728	1600	0.43	0.132	0.132	7.56	7.56	-40.0	-40.0	-43.1	21.3	13.4	13.1	0.24
940728	1900	0.43	0.132	0.132	7.56	7.56	-38.0	-38.0	-43.0	25.3	16.3	17.1	0.25
940728	2200	0.47	0.132	0.132	7.56	7.56	-38.0	-40.0	-46.4	21.0	15.4	13.0	0.23
940729	0100	0.45	0.132	0.181	7.56	5.52	-40.0	-52.0	-46.4	22.9	16.5	12.9	0.20
940729	0400	0.38	0.132	0.132	7.56	7.56	-36.0	-40.0	-44.4	26.4	20.2	12.0	0.21
940729	0700	0.39	0.132	0.181	7.56	5.52	-38.0	-38.0	-43.5	24.9	20.2	16.6	0.21
940729	1000	0.42	0.191	0.191	5.24	5.24	-48.0	-48.0	-42.1	23.8	19.4	18.1	0.20
940729	1300	0.44	0.191	0.171	5.24	5.83	-52.0	-50.0	-42.8	28.1	24.4	24.9	0.21
940729	1600	0.37	0.142	0.171	7.04	5.83	-40.0	-40.0	-39.4	26.6	25.3	22.4	0.21
940729	1900	0.38	0.181	0.113	5.52	8.87	-50.0	-36.0	-41.3	26.8	21.8	20.1	0.24
940729	2200	0.40	0.152	0.113	6.59	8.87	-42.0	-40.0	-45.1	27.5	21.8	27.9	0.19
940730	0100	0.37	0.123	0.123	8.16	8.16	-36.0	-52.0	-46.4	30.8	20.3	18.5	0.21
940730	0400	0.36	0.142	0.113	7.04	8.87	-40.0	-40.0	-44.8	35.7	24.5	20.5	0.21
940730	0700	0.36	0.142	0.113	7.04	8.87	-38.0	-38.0	-38.9	32.4	26.3	24.1	0.24
940730	1000	0.39	0.113	0.113	8.87	8.87	-28.0	-40.0	-41.5	33.8	27.6	23.6	0.22
940730	1300	0.39	0.113	0.113	8.87	8.87	-38.0	-38.0	-39.3	27.5	25.9	20.9	0.20
940730	1600	0.37	0.113	0.113	8.87	8.87	-28.0	-38.0	-39.0	28.2	25.4	25.1	0.23
940730	1900	0.39	0.113	0.113	8.87	8.87	-38.0	-38.0	-40.2	29.1	25.2	23.5	0.23
940730	2200	0.40	0.113	0.123	8.87	8.16	-36.0	-38.0	-40.7	29.5	24.3	23.4	0.24
940731	0100	0.41	0.123	0.123	8.16	8.16	-36.0	-36.0	-40.6	27.3	25.6	19.7	0.21
940731	0400	0.40	0.123	0.113	8.16	8.87	-38.0	-38.0	-34.8	28.0	28.0	21.7	0.24
940731	0700	0.42	0.123	0.123	8.16	8.16	-36.0	-38.0	-35.3	26.0	26.6	20.2	0.23
940731	1000	0.47	0.132	0.132	7.56	7.56	-38.0	-38.0	-35.5	23.9	24.1	21.1	0.23

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940731	1300	0.45	0.113	0.123	8.87	8.16	-30.0	-38.0	-34.4	25.1	24.8	26.4	0.23
940731	1600	0.43	0.132	0.123	7.56	8.16	-36.0	-38.0	-35.6	27.7	28.1	26.9	0.26
940731	1900	0.45	0.132	0.123	7.56	8.16	-36.0	-36.0	-33.6	30.1	31.4	25.3	0.22
940731	2200	0.48	0.132	0.132	7.56	7.56	-36.0	-38.0	-30.6	33.8	35.1	28.2	0.25
940801	0100	0.50	0.123	0.123	8.16	8.16	2.0	-10.0	-9.0	36.1	36.4	30.5	0.23
940801	0400	0.51	0.142	0.123	7.04	8.16	-38.0	-38.0	-22.2	32.2	33.2	33.3	0.24
940801	0700	0.52	0.132	0.132	7.56	7.56	-36.0	-36.0	-30.8	27.3	28.2	27.4	0.22
940801	1000	0.53	0.132	0.132	7.56	7.56	-36.0	-36.0	-29.8	30.0	29.8	32.4	0.23
940801	1300	0.50	0.123	0.123	8.16	8.16	-38.0	-38.0	-29.1	36.3	34.9	34.7	0.22
940801	1900	0.47	0.113	0.123	8.87	8.16	-10.0	-10.0	-15.4	34.7	34.7	29.5	0.27
940801	2200	0.48	0.132	0.132	7.56	7.56	-6.0	-36.0	-20.6	33.7	32.6	31.3	0.26
940802	0100	0.48	0.123	0.132	8.16	7.56	-16.0	-38.0	-25.1	32.7	31.5	30.9	0.29
940802	0400	0.49	0.132	0.123	7.56	8.16	-38.0	-38.0	-23.1	31.8	31.0	31.1	0.26
940802	0700	0.48	0.132	0.132	7.56	7.56	-36.0	-36.0	-23.6	32.4	31.0	31.9	0.25
940802	1000	0.49	0.103	0.123	9.71	8.16	-34.0	-36.0	-18.7	34.0	32.4	27.4	0.27
940802	1300	0.52	0.123	0.123	8.16	8.16	-36.0	-36.0	-23.4	32.9	32.8	33.4	0.24
940802	1600	0.47	0.132	0.123	7.56	8.16	4.0	0.0	-12.4	34.6	33.0	35.0	0.27
940802	1900	0.47	0.113	0.132	8.87	7.56	-36.0	-36.0	-28.7	34.8	31.8	29.9	0.25
940802	2200	0.46	0.123	0.123	8.16	8.16	-36.0	-36.0	-36.9	33.6	30.2	30.7	0.26
940803	0100	0.51	0.103	0.103	9.71	9.71	-38.0	-36.0	-37.6	32.0	30.6	24.8	0.25
940803	0400	0.50	0.113	0.113	8.87	8.87	-36.0	-36.0	-33.4	31.9	30.9	22.5	0.27
940803	0700	0.52	0.103	0.113	9.71	8.87	-38.0	-38.0	-31.2	36.1	33.1	25.0	0.27
940803	1000	0.54	0.113	0.113	8.87	8.87	-38.0	-38.0	-32.3	37.7	36.0	28.0	0.25
940803	1300	0.54	0.113	0.113	8.87	8.87	-40.0	-40.0	-35.3	35.5	33.2	28.7	0.27
940803	1600	0.52	0.113	0.113	8.87	8.87	-38.0	-38.0	-39.9	32.7	29.8	25.5	0.29
940803	1900	0.55	0.123	0.113	8.16	8.87	-36.0	-38.0	-24.9	37.0	33.2	36.1	0.24
940803	2200	0.54	0.113	0.123	8.87	8.16	-36.0	-36.0	-28.9	36.2	32.7	39.3	0.26
940804	0100	0.51	0.123	0.123	8.16	8.16	-38.0	-38.0	-37.0	38.7	36.0	38.3	0.27
940804	0400	0.47	0.113	0.113	8.87	8.87	-26.0	-38.0	-32.3	40.3	38.5	34.3	0.28
940804	0700	0.44	0.113	0.113	8.87	8.87	-28.0	-38.0	-31.6	39.3	39.1	32.4	0.27
940804	1000	0.43	0.123	0.113	8.16	8.87	-38.0	-36.0	-36.9	34.2	31.1	29.9	0.27
940804	1600	0.46	0.142	0.113	7.04	8.87	-38.0	-40.0	-32.8	28.3	22.0	25.3	0.32
940804	1900	0.45	0.152	0.123	6.59	8.16	-42.0	-36.0	-34.3	29.4	23.6	29.1	0.27
940804	2200	0.45	0.123	0.123	8.16	8.16	-38.0	-36.0	-34.8	27.9	24.0	32.5	0.27
940805	0100	0.44	0.113	0.123	8.87	8.16	-26.0	-36.0	-35.9	25.6	21.2	22.0	0.30
940805	0400	0.42	0.132	0.123	7.56	8.16	-36.0	-38.0	-36.4	26.9	21.7	23.2	0.33
940805	0700	0.40	0.132	0.123	7.56	8.16	-38.0	-38.0	-36.7	28.3	22.3	27.9	0.29
940805	1000	0.40	0.064	0.064	15.63	15.63	-12.0	-36.0	-33.0	29.3	22.5	26.3	0.39
940805	1600	0.43	0.064	0.064	15.63	15.63	-12.0	-36.0	-37.1	30.7	19.1	26.9	0.31
940805	1900	0.42	0.064	0.064	15.63	15.63	-16.0	-32.0	-34.1	30.2	26.1	26.8	0.37
940805	2200	0.42	0.132	0.064	7.56	15.63	-40.0	-40.0	-26.1	32.6	29.5	32.8	0.31
940806	0100	1.53	0.171	0.181	5.83	5.52	40.0	40.0	38.2	20.6	20.6	13.9	0.16
940806	0400	1.92	0.162	0.162	6.19	6.19	24.0	24.0	32.7	22.5	20.6	11.5	0.19
940806	0700	1.71	0.142	0.162	7.04	6.19	22.0	20.0	33.7	24.4	19.9	15.2	0.20
940806	1000	1.58	0.132	0.132	7.56	7.56	22.0	22.0	33.9	22.4	18.3	11.5	0.19
940806	1300	1.46	0.123	0.132	8.16	7.56	16.0	20.0	30.9	25.1	19.7	16.1	0.20
940806	1600	1.38	0.152	0.152	6.59	6.59	22.0	22.0	29.4	22.2	19.2	11.4	0.20
940806	1900	1.36	0.123	0.123	8.16	8.16	16.0	28.0	27.8	22.1	19.5	19.7	0.19
940806	2200	1.32	0.113	0.113	8.87	8.87	14.0	18.0	22.5	20.9	18.5	14.2	0.15
940807	0100	1.31	0.142	0.123	7.04	8.16	14.0	16.0	19.2	20.7	18.5	15.5	0.14
940807	0400	1.27	0.152	0.113	6.59	8.87	18.0	18.0	23.3	23.0	20.4	19.5	0.16
940807	0700	1.20	0.113	0.113	8.87	8.87	20.0	18.0	24.5	23.9	20.4	15.7	0.17
940807	1000	1.11	0.113	0.113	8.87	8.87	18.0	18.0	20.3	25.3	22.0	18.3	0.16

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940807	1300	1.11	0.123	0.123	8.16	8.16	12.0	14.0	18.3	28.5	23.3	16.6	0.13
940807	1600	1.14	0.132	0.132	7.56	7.56	12.0	14.0	15.2	32.6	30.2	20.8	0.14
940807	1900	1.09	0.152	0.132	6.59	7.56	12.0	14.0	13.5	35.0	32.1	27.4	0.15
940807	2200	1.02	0.171	0.132	5.83	7.56	20.0	16.0	14.8	35.2	31.0	30.7	0.14
940808	0100	1.03	0.103	0.171	9.71	5.83	-8.0	12.0	16.3	35.5	30.4	35.7	0.14
940808	0400	1.04	0.113	0.152	8.87	6.59	2.0	6.0	15.5	36.5	30.6	37.0	0.16
940808	0700	1.03	0.113	0.113	8.87	8.87	4.0	6.0	21.1	38.5	29.4	16.9	0.19
940808	1000	0.98	0.113	0.132	8.87	7.56	-4.0	12.0	22.2	36.5	25.3	17.5	0.19
940808	1300	0.95	0.113	0.123	8.87	8.16	4.0	6.0	19.0	34.1	25.8	17.4	0.14
940808	1600	0.93	0.113	0.152	8.87	6.59	-6.0	6.0	15.3	33.9	28.9	20.0	0.16
940808	1900	0.89	0.113	0.113	8.87	8.87	-8.0	2.0	14.1	34.4	28.4	15.7	0.19
940808	2200	0.80	0.113	0.113	8.87	8.87	-4.0	0.0	15.0	38.3	29.4	16.7	0.21
940809	0100	0.74	0.123	0.123	8.16	8.16	6.0	4.0	15.5	38.5	29.7	18.6	0.15
940809	0400	0.79	0.132	0.123	7.56	8.16	-2.0	2.0	13.4	38.5	31.4	17.8	0.17
940809	0700	0.86	0.201	0.152	4.98	6.59	30.0	28.0	17.6	38.9	29.8	31.5	0.19
940809	1000	0.82	0.210	0.123	4.75	8.16	22.0	26.0	15.3	36.5	27.9	18.5	0.17
940809	1300	0.78	0.201	0.152	4.98	6.59	12.0	14.0	10.1	31.9	26.8	36.7	0.13
940809	1600	0.72	0.142	0.142	7.04	7.04	2.0	6.0	7.0	34.2	29.7	24.0	0.15
940809	1900	0.67	0.123	0.142	8.16	7.04	-10.0	-8.0	2.1	35.2	32.0	28.5	0.22
940809	2200	0.61	0.123	0.123	8.16	8.16	0.0	0.0	-7.4	39.0	32.9	21.2	0.23
940810	0100	0.60	0.162	0.132	6.19	7.56	-40.0	0.0	-8.2	35.2	30.5	18.9	0.22
940810	0400	0.59	0.132	0.132	7.56	7.56	0.0	0.0	-10.0	33.9	32.9	21.1	0.22
940810	0700	0.62	0.123	0.123	8.16	8.16	-12.0	-8.0	-3.1	36.6	37.3	19.7	0.24
940810	1000	0.60	0.123	0.132	8.16	7.56	0.0	2.0	-3.9	39.9	38.2	21.6	0.25
940810	1300	0.57	0.152	0.152	6.59	6.59	-40.0	-2.0	-11.2	38.1	31.9	28.3	0.20
940810	1600	0.60	0.142	0.152	7.04	6.59	-40.0	-40.0	-25.9	40.9	33.9	38.3	0.17
940810	1900	0.61	0.152	0.152	6.59	6.59	-40.0	-38.0	-23.3	40.5	33.8	38.6	0.25
940810	2200	0.63	0.152	0.152	6.59	6.59	-44.0	-44.0	-30.1	40.8	34.8	39.5	0.27
940811	0100	0.62	0.152	0.152	6.59	6.59	-40.0	-40.0	-24.4	39.3	29.4	29.7	0.19
940811	0400	0.59	0.152	0.152	6.59	6.59	-38.0	-38.0	-30.1	39.3	33.6	40.0	0.16
940811	0700	0.57	0.162	0.162	6.19	6.19	-32.0	-42.0	-28.6	41.4	36.0	24.3	0.21
940811	1000	0.52	0.162	0.162	6.19	6.19	-40.0	-38.0	-28.5	39.7	33.2	18.1	0.24
940811	1300	0.46	0.152	0.162	6.59	6.19	-40.0	-38.0	-29.6	39.4	31.0	24.0	0.23
940811	1600	0.46	0.171	0.171	5.83	5.83	-44.0	-40.0	-28.4	37.4	29.1	20.5	0.18
940811	1900	0.46	0.171	0.171	5.83	5.83	-42.0	-38.0	-29.7	39.9	31.9	31.0	0.21
940811	2200	0.43	0.152	0.152	6.59	6.59	-40.0	-40.0	-37.7	37.2	33.1	30.9	0.23
940812	0100	0.40	0.132	0.142	7.56	7.04	-38.0	-38.0	-29.1	37.6	35.0	36.3	0.23
940812	0400	0.38	0.152	0.152	6.59	6.59	-38.0	-36.0	-28.8	34.7	29.6	20.5	0.22
940812	0700	0.39	0.152	0.152	6.59	6.59	-32.0	-36.0	-34.5	32.3	28.5	17.7	0.27
940812	1000	0.43	0.162	0.162	6.19	6.19	-42.0	-36.0	-35.0	29.8	27.8	16.3	0.27
940812	1300	0.45	0.123	0.123	8.16	8.16	-40.0	-40.0	-39.1	22.4	22.7	22.8	0.24
940812	1600	0.49	0.123	0.123	8.16	8.16	-24.0	-38.0	-34.2	18.6	19.2	16.1	0.21
940812	1900	0.50	0.123	0.123	8.16	8.16	-38.0	-38.0	-38.9	17.7	18.4	14.8	0.24
940812	2200	0.51	0.123	0.123	8.16	8.16	-38.0	-38.0	-36.7	18.4	18.9	15.8	0.29
940813	0100	0.54	0.123	0.123	8.16	8.16	-36.0	-36.0	-31.1	19.6	20.1	19.7	0.25
940813	0400	0.56	0.123	0.123	8.16	8.16	-20.0	-36.0	-27.7	18.1	18.3	17.4	0.18
940813	0700	0.59	0.132	0.123	7.56	8.16	-36.0	-36.0	-34.0	18.7	19.2	22.0	0.22
940813	1000	0.59	0.123	0.123	8.16	8.16	-40.0	-40.0	-38.9	19.5	20.1	20.4	0.27
940813	1300	0.51	0.113	0.113	8.87	8.87	-38.0	-38.0	-39.3	19.7	20.1	15.0	0.24
940813	1600	0.42	0.132	0.123	7.56	8.16	-36.0	-36.0	-35.9	20.6	17.6	27.4	0.26
940813	1900	0.40	0.123	0.123	8.16	8.16	-36.0	-36.0	-35.7	16.4	14.6	14.3	0.27
940813	2200	0.46	0.123	0.123	8.16	8.16	-36.0	-38.0	-39.2	16.1	13.8	16.1	0.32

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	χ
940814	0100	0.49	0.123	0.123	8.16	8.16	-38.0	-38.0	-39.4	18.0	14.4	16.2	0.30
940814	0400	0.51	0.113	0.123	8.87	8.16	-22.0	-38.0	-32.1	17.8	16.4	14.7	0.22
940814	0700	0.60	0.113	0.123	8.87	8.16	-26.0	-24.0	-30.4	16.9	15.3	16.0	0.20
940814	1000	0.65	0.113	0.113	8.87	8.87	-24.0	-24.0	-34.2	19.0	15.6	12.3	0.26
940814	1300	0.61	0.123	0.123	8.16	8.16	-38.0	-38.0	-43.3	19.4	13.6	12.3	0.30
940814	1600	0.65	0.123	0.123	8.16	8.16	-24.0	-52.0	-42.6	19.1	10.9	12.1	0.22
940814	1900	0.58	0.123	0.123	8.16	8.16	-34.0	-50.0	-41.9	19.9	10.3	13.8	0.19
940814	2200	0.55	0.123	0.123	8.16	8.16	-36.0	-50.0	-40.8	21.2	12.4	14.6	0.23
940815	0100	0.58	0.152	0.123	6.59	8.16	-40.0	-40.0	-43.2	18.1	12.2	13.8	0.22
940815	0400	0.51	0.152	0.123	6.59	8.16	-42.0	-42.0	-42.0	21.1	14.3	18.9	0.22
940815	0700	0.54	0.152	0.152	6.59	6.59	-42.0	-42.0	-42.5	18.7	14.3	8.7	0.17
940815	1000	0.63	0.162	0.152	6.19	6.59	-46.0	-44.0	-30.7	29.9	21.6	8.8	0.21
940815	1300	0.86	0.152	0.210	6.59	4.75	-44.0	-46.0	32.3	104.0	31.4	22.8	0.23
940815	1600	0.78	0.142	0.201	7.04	4.98	-42.0	-42.0	33.7	90.0	38.5	25.1	0.22
940815	1900	0.60	0.142	0.201	7.04	4.98	-38.0	-40.0	-21.0	74.4	46.0	31.7	0.16
940815	2200	0.56	0.162	0.152	6.19	6.59	-42.0	-42.0	-24.7	67.5	43.0	9.6	0.16
940816	0100	0.52	0.142	0.142	7.04	7.04	-40.0	-44.0	-17.4	68.2	43.2	8.7	0.18
940816	0400	0.48	0.162	0.152	6.19	6.59	-44.0	-48.0	-22.0	64.8	39.5	15.9	0.17
940816	0700	0.49	0.162	0.298	6.19	3.35	-44.0	-44.0	-13.4	67.1	40.8	33.2	0.16
940816	1000	0.71	0.259	0.259	3.86	3.86	12.0	12.0	13.6	49.7	36.8	30.9	0.15
940816	1300	0.63	0.250	0.240	4.01	4.17	10.0	4.0	-1.5	49.5	33.8	34.2	0.16
940816	1600	0.52	0.230	0.240	4.35	4.17	32.0	-10.0	7.7	56.3	38.5	40.1	0.17
940816	1900	0.44	0.171	0.230	5.83	4.35	-10.0	-10.0	-5.5	48.8	33.1	31.7	0.17
940816	2200	0.42	0.132	0.113	7.56	8.87	-38.0	-38.0	-15.3	44.0	33.3	32.7	0.20
940817	0100	0.43	0.142	0.142	7.04	7.04	-40.0	-40.0	-17.6	41.0	30.0	22.4	0.21
940817	0400	0.44	0.132	0.152	7.56	6.59	-42.0	-22.0	-18.8	39.4	40.4	28.4	0.21
940817	0700	0.65	0.220	0.259	4.54	3.86	-58.0	-38.0	-53.8	38.6	35.4	39.5	0.18
940817	1000	0.83	0.220	0.220	4.54	4.54	-50.0	-50.0	-45.6	29.6	25.7	19.7	0.15
940817	1300	0.96	0.162	0.162	6.19	6.19	-44.0	-44.0	-45.2	23.3	22.3	23.3	0.19
940817	1600	1.08	0.152	0.152	6.59	6.59	-40.0	-42.0	-42.2	23.5	20.5	18.4	0.19
940817	1900	0.90	0.142	0.152	7.04	6.59	-38.0	-38.0	-43.0	22.8	23.1	18.3	0.14
940817	2200	0.82	0.152	0.152	6.59	6.59	-38.0	-38.0	-40.9	20.9	21.4	16.9	0.13
940818	0100	0.87	0.152	0.152	6.59	6.59	-38.0	-40.0	-43.2	18.7	18.7	13.6	0.15
940818	0400	0.82	0.152	0.142	6.59	7.04	-44.0	-42.0	-43.6	21.6	21.6	18.0	0.20
940818	0700	0.69	0.142	0.142	7.04	7.04	-42.0	-40.0	-41.7	20.2	21.0	16.7	0.17
940818	1000	0.62	0.142	0.152	7.04	6.59	-40.0	-38.0	-39.4	18.3	19.3	16.2	0.14
940818	1300	0.65	0.142	0.162	7.04	6.19	-40.0	-40.0	-41.8	17.1	16.8	13.8	0.20
940818	1600	0.57	0.162	0.162	6.19	6.19	-44.0	-44.0	-44.7	21.4	16.4	12.8	0.25
940818	1900	0.47	0.152	0.152	6.59	6.59	-40.0	-42.0	-46.0	21.0	16.0	10.5	0.24
940818	2200	0.41	0.152	0.152	6.59	6.59	-44.0	-40.0	-42.1	22.1	19.6	17.4	0.21
940819	0100	0.41	0.162	0.162	6.19	6.19	-42.0	-40.0	-40.7	22.2	21.0	13.4	0.24
940819	0400	0.41	0.162	0.171	6.19	5.83	-46.0	-42.0	-42.1	27.5	22.7	20.5	0.27
940819	0700	0.37	0.162	0.162	6.19	6.19	-48.0	-38.0	-43.8	29.6	23.7	15.1	0.23
940819	1000	0.33	0.162	0.162	6.19	6.19	-42.0	-38.0	-42.1	32.2	24.2	22.4	0.19
940819	1300	0.33	0.181	0.093	5.52	10.72	-50.0	-42.0	-38.2	33.8	23.9	25.8	0.26
940819	1600	0.34	0.191	0.093	5.24	10.72	-54.0	-54.0	-43.1	37.1	24.7	27.6	0.30
940819	1900	0.34	0.191	0.093	5.24	10.72	-58.0	-58.0	-46.7	39.5	27.2	34.2	0.25
940819	2200	0.32	0.181	0.181	5.52	5.52	-54.0	-38.0	-42.8	35.5	29.2	17.0	0.30
940820	0100	0.32	0.201	0.201	4.98	4.98	-54.0	-42.0	-41.6	31.5	23.9	14.8	0.31
940820	0400	0.32	0.191	0.132	5.24	7.56	-48.0	-44.0	-44.6	32.4	24.1	18.3	0.35
940820	0700	0.30	0.123	0.123	8.16	8.16	-40.0	-42.0	-44.3	34.2	26.4	19.9	0.35
940820	1000	0.30	0.123	0.123	8.16	8.16	-40.0	-40.0	-43.0	25.8	27.3	16.7	0.34
940820	1300	0.33	0.123	0.123	8.16	8.16	-28.0	-38.0	-32.2	21.2	22.7	14.8	0.30
940820	1600	0.37	0.132	0.132	7.56	7.56	-24.0	-36.0	-37.0	22.1	24.5	14.9	0.35

(Sheet 12 of 68)

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	χ
940820	1900	0.39	0.132	0.132	7.56	7.56	-26.0	-36.0	-48.7	25.2	26.9	13.8	0.33
940820	2200	0.38	0.123	0.132	8.16	7.56	-26.0	-28.0	-40.4	24.9	22.0	18.7	0.27
940821	0100	0.44	0.132	0.132	7.56	7.56	-24.0	-26.0	-39.1	26.6	18.9	15.8	0.23
940821	0400	0.48	0.132	0.132	7.56	7.56	-40.0	-40.0	-43.2	23.0	18.7	15.1	0.28
940821	0700	0.50	0.132	0.132	7.56	7.56	-26.0	-28.0	-39.3	21.4	18.9	15.3	0.29
940821	1000	0.53	0.113	0.113	8.87	8.87	-26.0	-40.0	-37.7	22.1	19.1	15.2	0.26
940821	1300	0.59	0.123	0.123	8.16	8.16	-22.0	-24.0	-36.5	23.0	18.7	16.7	0.23
940821	1600	0.68	0.123	0.123	8.16	8.16	-24.0	-38.0	-42.0	25.2	16.0	15.1	0.27
940821	1900	0.59	0.123	0.064	8.16	15.63	-38.0	-40.0	-38.4	24.9	16.6	21.8	0.33
940821	2200	0.52	0.123	0.123	8.16	8.16	-20.0	-38.0	-33.4	23.4	19.4	17.4	0.29
940822	0100	0.55	0.064	0.064	15.63	15.63	-16.0	-38.0	-28.7	22.3	19.6	19.4	0.27
940822	0400	0.65	0.074	0.074	13.56	13.56	-16.0	-20.0	-28.4	24.2	21.0	22.7	0.36
940822	0700	0.66	0.074	0.074	13.56	13.56	-30.0	-30.0	-35.6	21.9	21.2	17.7	0.36
940822	1000	0.77	0.074	0.074	13.56	13.56	-16.0	-18.0	-23.2	23.5	23.5	20.9	0.42
940822	1300	0.81	0.074	0.074	13.56	13.56	-34.0	-36.0	-32.0	25.1	24.4	27.5	0.21
940822	1600	0.99	0.074	0.074	13.56	13.56	-8.0	-32.0	-22.3	26.0	25.3	28.8	0.37
940822	1900	1.02	0.083	0.083	11.98	11.98	-14.0	-16.0	-22.1	24.9	24.8	22.5	0.44
940822	2200	1.10	0.083	0.083	11.98	11.98	-14.0	-20.0	-8.2	30.0	21.8	22.5	0.32
940823	0100	1.28	0.083	0.083	11.98	11.98	-14.0	48.0	13.4	63.0	22.1	27.8	0.18
940823	0400	1.40	0.191	0.191	5.24	5.24	46.0	48.0	22.9	55.8	22.1	17.4	0.18
940823	0700	1.52	0.181	0.093	5.52	10.72	28.0	26.0	22.1	32.7	26.4	40.5	0.18
940823	1000	1.59	0.113	0.103	8.87	9.71	22.0	24.0	23.6	25.6	20.8	23.7	0.20
940823	1300	1.45	0.093	0.093	10.72	10.72	14.0	24.0	21.7	25.0	21.8	27.1	0.16
940823	1600	1.44	0.103	0.103	9.71	9.71	16.0	18.0	19.1	24.5	21.6	28.6	0.16
940823	1900	1.39	0.103	0.103	9.71	9.71	14.0	14.0	19.8	22.7	20.4	14.5	0.19
940823	2200	1.29	0.103	0.103	9.71	9.71	10.0	14.0	15.8	22.8	19.7	19.4	0.18
940824	0100	1.23	0.113	0.103	8.87	9.71	12.0	12.0	13.8	21.3	20.2	22.1	0.11
940824	0400	1.24	0.123	0.103	8.16	9.71	10.0	12.0	15.9	20.0	21.0	27.5	0.12
940824	0700	1.20	0.113	0.113	8.87	8.87	12.0	12.0	13.5	22.2	21.8	16.3	0.17
940824	1000	1.18	0.103	0.103	9.71	9.71	4.0	12.0	18.2	26.2	20.6	16.5	0.19
940824	1300	1.12	0.123	0.113	8.16	8.87	14.0	14.0	17.2	27.5	21.1	23.8	0.15
940824	1600	1.18	0.113	0.113	8.87	8.87	0.0	12.0	13.8	26.0	21.5	17.5	0.12
940824	1900	1.17	0.113	0.113	8.87	8.87	2.0	10.0	14.8	24.2	23.0	15.7	0.16
940824	2200	1.00	0.113	0.113	8.87	8.87	10.0	12.0	14.3	28.0	27.1	33.8	0.18
940825	0100	0.89	0.103	0.113	9.71	8.87	0.0	2.0	9.7	28.5	26.3	29.6	0.15
940825	0400	0.85	0.113	0.113	8.87	8.87	12.0	10.0	11.4	24.5	24.2	19.0	0.13
940825	0700	0.81	0.103	0.113	9.71	8.87	2.0	6.0	9.2	26.8	25.5	20.9	0.26
940825	1000	0.78	0.113	0.113	8.87	8.87	0.0	12.0	8.9	26.4	26.0	19.8	0.27
940825	1300	0.82	0.123	0.113	8.16	8.87	8.0	10.0	9.7	22.8	22.8	18.9	0.16
940825	1600	0.84	0.113	0.113	8.87	8.87	8.0	8.0	6.8	22.4	22.5	15.2	0.13
940825	1900	0.80	0.113	0.113	8.87	8.87	4.0	4.0	4.4	22.3	23.6	12.5	0.25
940825	2200	0.70	0.103	0.103	9.71	9.71	10.0	8.0	6.7	26.0	26.8	19.5	0.23
940826	0100	0.69	0.103	0.103	9.71	9.71	0.0	6.0	-0.1	25.7	25.5	22.0	0.23
940826	0400	0.75	0.103	0.103	9.71	9.71	2.0	2.0	2.6	24.0	24.0	21.2	0.16
940826	0700	0.73	0.113	0.113	8.87	8.87	-2.0	-2.0	-2.2	25.2	23.7	17.3	0.23
940826	1000	0.73	0.103	0.103	9.71	9.71	0.0	0.0	-1.1	24.1	24.0	14.0	0.27
940826	1600	0.63	0.113	0.113	8.87	8.87	6.0	4.0	-3.2	28.8	27.7	22.9	0.15
940826	1900	0.62	0.113	0.113	8.87	8.87	-2.0	-2.0	-8.6	28.6	27.1	24.2	0.24
940826	2200	0.55	0.113	0.113	8.87	8.87	-2.0	0.0	-5.1	32.2	29.9	23.1	0.31
940827	0100	0.53	0.113	0.113	8.87	8.87	-2.0	0.0	-5.8	31.8	30.3	28.9	0.26
940827	0400	0.51	0.113	0.113	8.87	8.87	2.0	2.0	-3.1	31.8	29.9	25.9	0.21
940827	0700	0.53	0.123	0.123	8.16	8.16	-36.0	-14.0	-12.9	31.3	30.7	30.6	0.25
940827	1000	0.50	0.123	0.113	8.16	8.87	-14.0	-14.0	-26.2	33.6	32.5	30.4	0.27

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940827	1300	0.47	0.103	0.113	9.71	8.87	-16.0	-16.0	-18.9	30.9	28.9	26.0	0.32
940827	1600	0.45	0.113	0.113	8.87	8.87	-24.0	-18.0	-17.2	32.1	29.1	25.3	0.28
940827	1900	0.45	0.123	0.113	8.16	8.87	-12.0	-12.0	-19.8	31.5	30.0	30.5	0.30
940827	2200	0.44	0.132	0.123	7.56	8.16	-36.0	-38.0	-23.5	35.1	33.2	29.1	0.35
940828	0100	0.43	0.113	0.113	8.87	8.87	-38.0	-36.0	-28.3	34.5	34.1	29.6	0.32
940828	0400	0.42	0.113	0.113	8.87	8.87	-12.0	-36.0	-20.2	34.3	33.5	28.0	0.27
940828	0700	0.43	0.123	0.123	8.16	8.16	-10.0	-30.0	-23.4	30.8	31.6	26.4	0.28
940828	1000	0.42	0.123	0.123	8.16	8.16	2.0	-14.0	-18.3	31.2	28.9	30.3	0.29
940828	1300	0.39	0.123	0.123	8.16	8.16	-38.0	-38.0	-34.3	31.2	30.8	29.2	0.28
940828	1600	0.38	0.103	0.103	9.71	9.71	-32.0	-34.0	-26.6	27.7	27.8	22.3	0.34
940828	1900	0.39	0.103	0.103	9.71	9.71	-22.0	-34.0	-21.0	28.8	27.8	23.4	0.30
940828	2200	0.37	0.103	0.113	9.71	8.87	-26.0	-28.0	-29.4	28.0	27.3	26.7	0.35
940829	0100	0.35	0.113	0.113	8.87	8.87	-32.0	-34.0	-30.9	26.1	26.0	25.3	0.38
940829	0400	0.33	0.113	0.113	8.87	8.87	-26.0	-36.0	-31.4	27.6	27.2	22.4	0.39
940829	0700	0.34	0.113	0.113	8.87	8.87	-30.0	-32.0	-28.7	24.3	23.0	21.5	0.33
940829	1000	0.31	0.113	0.113	8.87	8.87	-34.0	-34.0	-32.1	22.6	22.2	21.0	0.34
940829	1300	0.30	0.113	0.113	8.87	8.87	-28.0	-28.0	-29.7	22.4	22.3	17.7	0.33
940829	1600	0.29	0.113	0.113	8.87	8.87	-34.0	-34.0	-33.2	25.7	20.3	18.4	0.38
940829	1900	0.27	0.103	0.113	9.71	8.87	-26.0	-34.0	-33.1	27.3	28.9	23.4	0.35
940829	2200	0.37	0.113	0.308	8.87	3.25	-32.0	-34.0	8.6	76.6	30.0	20.5	0.28
940830	0100	0.57	0.259	0.259	3.86	3.86	44.0	46.0	23.7	51.9	29.8	29.0	0.19
940830	0400	0.66	0.230	0.250	4.35	4.01	48.0	44.0	30.2	38.7	26.4	24.9	0.13
940830	0700	0.73	0.220	0.220	4.54	4.54	42.0	36.0	27.5	38.0	32.1	28.2	0.10
940830	1000	0.59	0.181	0.181	5.52	5.52	20.0	20.0	13.1	43.2	33.8	14.6	0.15
940830	1300	0.52	0.191	0.191	5.24	5.24	26.0	26.0	0.2	56.3	42.0	11.9	0.16
940830	1600	0.47	0.201	0.220	4.98	4.54	24.0	24.0	9.5	57.0	42.8	26.2	0.17
940830	1900	0.47	0.201	0.220	4.98	4.54	32.0	32.0	16.7	50.9	36.0	24.3	0.16
940830	2200	0.44	0.162	0.230	6.19	4.35	4.0	8.0	7.7	47.3	35.9	31.2	0.19
940831	0100	0.45	0.181	0.171	5.52	5.83	-8.0	-22.0	0.0	43.7	37.9	25.5	0.22
940831	0400	0.43	0.201	0.201	4.98	4.98	8.0	-10.0	-6.1	37.8	35.3	33.7	0.24
940831	0700	0.41	0.103	0.103	9.71	9.71	-28.0	-26.0	-8.6	38.9	38.4	25.5	0.27
940831	1000	0.38	0.113	0.074	8.87	13.56	-30.0	-22.0	-7.7	37.6	35.4	24.8	0.22
940831	1300	0.37	0.113	0.103	8.87	9.71	-24.0	-24.0	-13.0	35.3	32.8	25.7	0.26
940831	1600	0.34	0.113	0.074	8.87	13.56	-22.0	-22.0	-13.2	30.5	26.7	25.7	0.36
940831	1900	0.35	0.074	0.074	13.56	13.56	4.0	-22.0	-16.9	31.6	27.2	20.5	0.31
940831	2200	0.35	0.113	0.113	8.87	8.87	-24.0	-22.0	-18.3	29.5	26.4	18.3	0.30
940901	0100	0.34	0.123	0.113	8.16	8.87	-36.0	-36.0	-25.9	32.3	27.1	21.2	0.34
940901	0400	0.31	0.113	0.113	8.87	8.87	-36.0	-36.0	-34.1	30.1	22.0	16.4	0.33
940901	0700	0.28	0.113	0.113	8.87	8.87	-34.0	-38.0	-33.7	34.2	26.1	22.3	0.33
940901	1000	0.27	0.113	0.083	8.87	11.98	-36.0	-36.0	-31.3	31.8	27.9	24.5	0.45
940901	1300	0.28	0.123	0.083	8.16	11.98	-20.0	-20.0	-30.4	33.7	32.7	28.6	0.32
940901	1600	0.34	0.269	0.279	3.72	3.59	90.0	90.0	18.1	96.2	36.5	28.2	0.27
940901	1900	0.30	0.113	0.083	8.87	11.98	-38.0	-38.0	-3.2	42.1	51.9	29.9	0.36
940901	2200	0.32	0.123	0.083	8.16	11.98	-36.0	-38.0	6.4	79.3	34.2	31.4	0.35
940902	0100	0.72	0.230	0.240	4.35	4.17	56.0	56.0	46.4	33.7	25.0	15.3	0.15
940902	0400	0.96	0.220	0.220	4.54	4.54	50.0	50.0	46.0	21.3	19.7	10.1	0.16
940902	0700	0.75	0.220	0.220	4.54	4.54	48.0	48.0	39.8	29.7	24.5	19.9	0.13
940902	1000	0.76	0.181	0.191	5.52	5.24	28.0	46.0	33.4	30.0	25.5	19.5	0.10
940902	1300	1.11	0.191	0.191	5.24	5.24	30.0	46.0	34.8	24.1	24.8	18.6	0.14
940902	1600	1.08	0.171	0.171	5.83	5.83	38.0	38.0	29.6	30.5	28.0	16.5	0.10
940902	1900	1.19	0.171	0.191	5.83	5.24	20.0	26.0	24.6	30.9	29.4	30.1	0.09
940902	2200	1.31	0.181	0.191	5.52	5.24	42.0	22.0	29.6	34.2	32.6	28.9	0.09
940903	0100	1.63	0.171	0.171	5.83	5.83	24.0	18.0	23.9	25.0	24.2	18.1	0.09

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940903	0400	1.46	0.171	0.162	5.83	6.19	24.0	22.0	25.1	28.1	25.0	22.9	0.10
940903	0700	1.53	0.171	0.171	5.83	5.83	14.0	16.0	20.6	30.2	25.5	26.1	0.10
940903	1000	1.94	0.162	0.162	6.19	6.19	18.0	18.0	21.6	28.9	25.4	20.5	0.09
940903	1300	2.29	0.142	0.152	7.04	6.59	12.0	12.0	21.1	29.3	26.4	22.3	0.11
940903	1600	2.50	0.132	0.132	7.56	7.56	10.0	10.0	18.5	27.2	25.0	17.2	0.14
940903	1900	2.40	0.123	0.123	8.16	8.16	8.0	10.0	18.2	27.1	22.0	15.7	0.14
940903	2200	2.32	0.123	0.123	8.16	8.16	6.0	8.0	13.9	28.2	23.4	18.1	0.13
940904	0100	2.41	0.132	0.132	7.56	7.56	10.0	8.0	16.2	29.2	24.5	19.0	0.14
940904	0400	2.58	0.123	0.123	8.16	8.16	10.0	12.0	20.7	30.1	23.5	19.1	0.17
940904	0700	2.67	0.123	0.123	8.16	8.16	10.0	12.0	22.0	29.9	21.3	17.3	0.18
940904	1000	2.73	0.103	0.103	9.71	9.71	6.0	12.0	21.0	29.3	22.5	18.1	0.16
940904	1300	2.81	0.103	0.103	9.71	9.71	2.0	12.0	19.9	32.1	24.0	17.7	0.18
940904	1600	2.74	0.103	0.103	9.71	9.71	6.0	12.0	24.5	31.4	22.8	17.3	0.19
940904	1900	2.58	0.113	0.113	8.87	8.87	12.0	14.0	22.5	30.4	22.5	19.7	0.19
940904	2200	2.38	0.093	0.093	10.72	10.72	0.0	12.0	16.2	26.0	22.9	17.1	0.15
940905	0100	2.22	0.093	0.093	10.72	10.72	6.0	10.0	12.6	23.7	21.9	17.7	0.14
940905	0400	2.17	0.093	0.083	10.72	11.98	6.0	10.0	13.0	24.4	22.6	22.0	0.18
940905	0700	1.96	0.074	0.083	13.56	11.98	2.0	4.0	12.2	24.4	22.6	21.9	0.21
940905	1000	1.84	0.083	0.083	11.98	11.98	4.0	8.0	8.6	21.3	20.5	19.3	0.15
940905	1300	1.78	0.083	0.083	11.98	11.98	2.0	4.0	7.5	20.1	20.6	14.8	0.13
940905	1600	1.64	0.083	0.083	11.98	11.98	6.0	8.0	10.2	22.6	22.5	19.6	0.17
940905	1900	1.45	0.083	0.083	11.98	11.98	4.0	10.0	9.0	23.3	22.8	21.2	0.20
940905	2200	1.36	0.083	0.083	11.98	11.98	0.0	10.0	7.3	24.5	23.8	20.1	0.20
940906	0100	1.29	0.093	0.083	10.72	11.98	8.0	8.0	8.1	24.4	23.8	21.9	0.16
940906	0400	1.19	0.093	0.093	10.72	10.72	8.0	8.0	7.2	26.1	27.4	22.7	0.20
940906	0700	0.97	0.093	0.093	10.72	10.72	12.0	10.0	11.2	26.3	28.2	22.2	0.47
940906	1000	0.93	0.083	0.083	11.98	11.98	6.0	8.0	8.4	21.0	22.3	18.8	0.38
940906	1300	0.89	0.083	0.083	11.98	11.98	8.0	6.0	7.0	19.0	19.7	15.7	0.19
940906	1600	0.86	0.083	0.083	11.98	11.98	6.0	6.0	5.4	27.3	27.8	25.1	0.25
940906	1900	0.87	0.083	0.083	11.98	11.98	8.0	8.0	-2.2	29.2	28.6	24.1	0.32
940906	2200	0.70	0.083	0.083	11.98	11.98	0.0	2.0	-9.6	28.7	28.7	23.7	0.35
940907	0100	0.61	0.093	0.093	10.72	10.72	2.0	2.0	-9.8	30.7	27.3	22.1	0.18
940907	0400	0.54	0.093	0.093	10.72	10.72	-2.0	0.0	-18.9	40.1	25.5	21.9	0.33
940907	0700	0.49	0.123	0.093	8.16	10.72	-38.0	-40.0	-27.5	43.9	26.2	27.6	0.31
940907	1000	0.43	0.123	0.093	8.16	10.72	-38.0	-38.0	-25.8	41.0	26.8	27.6	0.40
940907	1300	0.39	0.123	0.123	8.16	8.16	-36.0	-36.0	-21.5	35.2	25.6	27.5	0.28
940907	1600	0.37	0.103	0.103	9.71	9.71	-10.0	-10.0	-15.6	35.8	30.4	25.8	0.35
940907	1900	0.37	0.123	0.103	8.16	9.71	-36.0	-38.0	-20.6	37.8	32.5	30.2	0.46
940907	2200	0.39	0.123	0.103	8.16	9.71	-40.0	-40.0	-27.4	37.4	32.4	33.6	0.31
940908	0100	0.39	0.113	0.103	8.87	9.71	-20.0	-38.0	-29.4	34.4	30.6	31.9	0.29
940908	0400	0.41	0.123	0.103	8.16	9.71	-36.0	-38.0	-34.8	32.0	28.8	26.7	0.31
940908	0700	0.41	0.113	0.113	8.87	8.87	-40.0	-40.0	-11.3	51.2	28.7	27.1	0.30
940908	1000	0.49	0.123	0.308	8.16	3.25	-38.0	-38.0	8.5	69.5	33.2	36.5	0.26
940908	1300	0.44	0.113	0.113	8.87	8.87	-38.0	-36.0	-0.8	54.8	30.8	28.5	0.21
940908	1600	0.47	0.123	0.123	8.16	8.16	-18.0	-36.0	-3.6	51.0	30.0	27.6	0.25
940908	1900	0.48	0.123	0.123	8.16	8.16	-38.0	-38.0	-8.6	52.1	28.0	25.9	0.28
940908	2200	0.44	0.123	0.113	8.16	8.87	-38.0	-38.0	-12.3	51.5	26.6	29.7	0.30
940909	0100	0.38	0.132	0.113	7.56	8.87	-38.0	-38.0	-19.1	38.6	26.1	24.1	0.27
940909	0400	0.37	0.113	0.113	8.87	8.87	-38.0	-36.0	-20.6	35.5	27.6	27.1	0.34
940909	0700	0.37	0.132	0.113	7.56	8.87	-40.0	-38.0	-20.5	40.4	28.6	31.5	0.38
940909	1000	0.35	0.113	0.064	8.87	15.63	-38.0	-38.0	-24.1	34.5	28.5	27.1	0.37
940909	1300	0.36	0.132	0.064	7.56	15.63	-40.0	-38.0	-26.0	29.9	26.2	25.6	0.46
940909	1600	0.37	0.074	0.064	13.56	15.63	-2.0	-38.0	-23.5	30.0	25.0	23.8	0.50
940909	1900	0.39	0.064	0.064	15.63	15.63	-10.0	-40.0	-26.1	31.4	25.5	20.9	0.51

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940909	2200	0.38	0.064	0.064	15.63	15.63	-8.0	-22.0	-24.1	31.9	23.5	24.0	0.59
940910	0100	0.38	0.074	0.064	13.56	15.63	0.0	-34.0	-15.3	34.3	28.3	34.0	0.51
940910	0400	0.38	0.074	0.074	13.56	13.56	-12.0	-28.0	-19.8	30.6	27.7	28.4	0.48
940910	0700	0.41	0.074	0.074	13.56	13.56	2.0	-14.0	-12.3	30.2	27.6	27.2	0.51
940910	1000	0.41	0.074	0.074	13.56	13.56	-24.0	-24.0	-20.4	29.4	26.9	24.3	0.41
940910	1300	0.43	0.074	0.074	13.56	13.56	0.0	-12.0	-12.1	26.7	25.6	27.0	0.60
940910	1600	0.41	0.074	0.074	13.56	13.56	0.0	-2.0	-8.9	28.6	25.1	22.9	0.37
940910	1900	0.45	0.074	0.074	13.56	13.56	2.0	2.0	-5.8	31.0	28.1	26.4	0.39
940910	2200	0.45	0.074	0.074	13.56	13.56	0.0	-2.0	-3.4	34.5	25.7	26.4	0.42
940911	0100	0.44	0.074	0.074	13.56	13.56	-8.0	-8.0	-5.7	34.0	24.5	22.9	0.30
940911	0400	0.39	0.074	0.074	13.56	13.56	-6.0	-8.0	-10.2	30.7	26.0	26.1	0.44
940911	0700	0.42	0.083	0.083	11.98	11.98	-2.0	-2.0	-9.0	33.4	28.3	22.3	0.32
940911	1000	0.41	0.074	0.074	13.56	13.56	-12.0	-22.0	-13.4	37.0	30.1	32.5	0.44
940911	1300	0.48	0.318	0.074	3.15	13.56	56.0	-20.0	13.2	60.8	26.2	28.5	0.26
940911	1600	0.67	0.220	0.240	4.54	4.17	48.0	50.0	33.8	45.8	20.6	13.8	0.20
940911	1900	0.58	0.201	0.074	4.98	13.56	42.0	44.0	22.9	54.1	21.4	23.7	0.25
940911	2200	0.55	0.201	0.083	4.98	11.98	46.0	46.0	25.6	50.9	25.1	22.2	0.25
940912	0100	0.55	0.191	0.083	5.24	11.98	30.0	30.0	19.2	44.2	23.2	26.2	0.19
940912	0400	0.51	0.191	0.083	5.24	11.98	22.0	24.0	14.1	43.2	24.0	22.5	0.21
940912	0700	0.56	0.191	0.083	5.24	11.98	18.0	22.0	11.4	40.1	24.7	26.2	0.23
940912	1000	0.73	0.220	0.250	4.54	4.01	28.0	28.0	26.8	37.8	20.7	19.2	0.22
940912	1300	0.75	0.191	0.201	5.24	4.98	24.0	24.0	22.2	37.7	19.9	15.3	0.20
940912	1600	0.66	0.181	0.191	5.52	5.24	22.0	22.0	20.4	39.8	21.1	16.2	0.16
940912	1900	0.59	0.181	0.181	5.52	5.52	36.0	36.0	17.4	43.9	20.8	15.9	0.17
940912	2200	0.53	0.181	0.083	5.52	11.98	44.0	44.0	12.0	54.1	24.5	29.4	0.20
940913	0100	0.47	0.123	0.083	8.16	11.98	-40.0	42.0	2.7	56.1	25.8	25.9	0.33
940913	0400	0.46	0.113	0.083	8.87	11.98	-42.0	-30.0	-8.0	50.0	25.4	25.2	0.25
940913	0700	0.47	0.083	0.083	11.98	11.98	-28.0	-28.0	-10.2	42.9	23.7	24.1	0.25
940913	1000	0.49	0.093	0.083	10.72	11.98	-28.0	-28.0	-15.2	35.3	23.8	28.0	0.34
940913	1300	0.47	0.093	0.093	10.72	10.72	-38.0	-38.0	-26.4	31.1	25.7	18.5	0.27
940913	1600	0.51	0.093	0.093	10.72	10.72	-36.0	-36.0	-26.3	23.4	22.7	18.4	0.36
940913	1900	0.50	0.093	0.093	10.72	10.72	-30.0	-30.0	-24.8	21.0	21.1	17.7	0.30
940913	2200	0.50	0.103	0.103	9.71	9.71	-24.0	-24.0	-26.5	19.6	19.6	14.2	0.34
940914	0100	0.46	0.103	0.103	9.71	9.71	-38.0	-38.0	-31.6	20.8	20.0	15.1	0.34
940914	0400	0.42	0.103	0.103	9.71	9.71	-36.0	-36.0	-30.4	21.8	22.1	15.0	0.37
940914	0700	0.41	0.103	0.103	9.71	9.71	-32.0	-32.0	-30.8	17.7	18.6	13.2	0.39
940914	1000	0.41	0.103	0.103	9.71	9.71	-32.0	-34.0	-29.5	18.9	20.4	12.7	0.47
940914	1300	0.39	0.113	0.113	8.87	8.87	-26.0	-28.0	-25.5	22.0	20.4	14.9	0.40
940914	1600	0.40	0.113	0.113	8.87	8.87	-26.0	-26.0	-26.5	21.2	20.7	14.2	0.33
940914	1900	0.38	0.113	0.113	8.87	8.87	-34.0	-26.0	-32.6	21.6	22.2	13.4	0.44
940914	2200	0.39	0.113	0.064	8.87	15.63	-38.0	-38.0	-22.1	26.7	24.2	33.7	0.36
940915	0100	0.38	0.113	0.064	8.87	15.63	-28.0	-28.0	-21.3	29.2	22.7	29.3	0.63
940915	0400	0.35	0.064	0.064	15.63	15.63	-14.0	-26.0	-24.3	32.3	26.9	31.5	0.44
940915	1300	0.37	0.064	0.064	15.63	15.63	-28.0	-28.0	-30.5	37.3	29.2	37.4	0.65
940915	1600	0.36	0.064	0.064	15.63	15.63	-30.0	-30.0	-27.8	42.4	36.1	37.9	0.65
940915	1900	0.36	0.064	0.064	15.63	15.63	-28.0	-38.0	-30.9	37.5	33.7	35.2	0.73
940915	2200	0.39	0.074	0.064	13.56	15.63	-24.0	-26.0	-27.3	35.5	30.6	33.0	0.51
940916	0100	0.41	0.074	0.074	13.56	13.56	-16.0	-22.0	-16.7	34.7	29.7	23.7	0.46
940916	0400	0.40	0.074	0.074	13.56	13.56	-26.0	-40.0	-26.2	38.0	34.1	30.0	0.51
940916	0700	0.39	0.074	0.074	13.56	13.56	-16.0	-40.0	-19.1	36.7	33.8	29.8	0.80
940916	1000	0.40	0.074	0.074	13.56	13.56	-24.0	-24.0	-21.0	32.6	31.1	26.2	0.57
940916	1300	0.41	0.074	0.074	13.56	13.56	-24.0	-22.0	-11.4	35.2	32.4	31.4	0.51
940916	1600	0.42	0.074	0.074	13.56	13.56	2.0	0.0	-2.5	37.2	35.6	36.3	0.61

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940916	1900	0.43	0.074	0.074	13.56	13.56	-26.0	-24.0	-14.7	34.1	31.8	31.8	0.53
940916	2200	0.43	0.074	0.074	13.56	13.56	-10.0	-10.0	-14.4	32.6	30.9	29.5	0.41
940917	0100	0.42	0.074	0.074	13.56	13.56	6.0	-10.0	-10.2	33.2	32.4	33.7	0.37
940917	0400	0.41	0.074	0.074	13.56	13.56	2.0	-8.0	-6.6	31.9	31.0	32.6	0.57
940917	0700	0.39	0.074	0.074	13.56	13.56	6.0	-10.0	-8.9	32.1	31.0	30.2	0.38
940917	1000	0.39	0.074	0.074	13.56	13.56	0.0	-4.0	-12.0	31.5	30.8	29.5	0.37
940917	1300	0.40	0.074	0.074	13.56	13.56	2.0	-16.0	-16.3	31.2	26.3	29.6	0.41
940917	1600	0.49	0.318	0.074	3.15	13.56	-54.0	-54.0	-34.7	43.2	19.2	33.5	0.51
940917	1900	0.41	0.318	0.074	3.15	13.56	-54.0	-54.0	-25.9	40.6	21.9	34.2	0.39
940917	2200	0.36	0.318	0.074	3.15	13.56	-56.0	-56.0	-32.9	35.6	22.4	28.7	0.39
940918	0100	0.34	0.074	0.074	13.56	13.56	-24.0	-26.0	-33.0	31.5	21.6	25.4	0.51
940918	0400	0.35	0.074	0.074	13.56	13.56	-22.0	-36.0	-32.9	36.0	22.0	29.6	0.30
940918	0700	0.47	0.308	0.074	3.25	13.56	64.0	64.0	22.4	81.8	22.3	26.9	0.27
940918	1000	0.86	0.210	0.210	4.75	4.75	54.0	56.0	43.9	20.6	17.5	13.6	0.18
940918	1300	0.69	0.220	0.220	4.54	4.54	44.0	40.0	35.9	34.2	22.0	14.6	0.18
940918	1600	0.63	0.201	0.220	4.98	4.54	52.0	50.0	43.5	69.3	35.9	32.7	0.21
940918	1900	0.53	0.132	0.220	7.56	4.54	-38.0	90.0	39.2	76.6	40.8	32.1	0.23
940918	2200	0.85	0.230	0.230	4.35	4.35	44.0	44.0	23.3	41.9	34.6	27.1	0.12
940919	0100	1.20	0.201	0.191	4.98	5.24	36.0	34.0	26.0	30.9	29.3	20.8	0.13
940919	0400	1.38	0.181	0.191	5.52	5.24	30.0	32.0	28.3	31.2	28.9	26.0	0.15
940919	0700	1.57	0.181	0.181	5.52	5.52	22.0	28.0	32.0	32.7	29.6	24.4	0.15
940919	1000	1.60	0.171	0.171	5.83	5.83	26.0	14.0	28.4	30.4	26.4	18.3	0.12
940919	1300	1.36	0.152	0.162	6.59	6.19	12.0	10.0	20.0	27.8	24.8	20.0	0.10
940919	1600	1.19	0.142	0.142	7.04	7.04	14.0	14.0	18.9	25.5	24.1	14.0	0.13
940919	1900	0.93	0.142	0.132	7.04	7.56	14.0	14.0	15.8	32.3	28.7	32.5	0.16
940919	2200	0.89	0.162	0.132	6.19	7.56	16.0	14.0	14.6	35.8	33.2	26.4	0.15
940920	0100	0.85	0.142	0.142	7.04	7.04	10.0	10.0	10.2	35.3	34.5	29.7	0.11
940920	0400	0.83	0.132	0.132	7.56	7.56	6.0	-2.0	10.0	35.7	35.4	28.6	0.17
940920	0700	0.78	0.142	0.132	7.04	7.56	0.0	-2.0	5.2	35.9	36.6	26.7	0.20
940920	1300	0.67	0.152	0.152	6.59	6.59	-8.0	-6.0	-12.1	30.4	30.3	22.7	0.14
940920	1600	0.68	0.142	0.152	7.04	6.59	-4.0	-10.0	-9.8	30.2	30.2	30.3	0.15
940920	1900	0.67	0.162	0.162	6.19	6.19	-8.0	-8.0	-14.5	33.9	33.5	23.7	0.19
940920	2200	0.66	0.162	0.152	6.19	6.59	-32.0	-10.0	-7.0	40.0	36.1	28.5	0.17
940921	0100	0.67	0.171	0.162	5.83	6.19	-30.0	-10.0	3.5	40.3	40.3	23.6	0.14
940921	0400	0.79	0.279	0.269	3.59	3.72	42.0	-24.0	-1.8	50.6	39.4	39.7	0.15
940921	0700	0.82	0.269	0.259	3.72	3.86	28.0	36.0	8.4	51.7	36.2	33.1	0.14
940921	1000	0.77	0.269	0.269	3.72	3.72	44.0	44.0	7.0	49.0	32.0	28.5	0.16
940921	1300	0.76	0.162	0.162	6.19	6.19	-20.0	-18.0	-0.4	47.1	29.5	19.7	0.14
940921	1600	0.98	0.171	0.171	5.83	5.83	-22.0	-16.0	-3.5	46.5	29.9	22.2	0.12
940921	1900	1.09	0.162	0.162	6.19	6.19	-38.0	-38.0	-2.0	57.8	31.6	22.3	0.15
940921	2200	1.26	0.230	0.152	4.35	6.59	42.0	42.0	7.9	60.9	31.0	24.9	0.16
940922	0100	2.12	0.132	0.132	7.56	7.56	-14.0	-18.0	-0.9	40.3	32.1	20.3	0.13
940922	0400	2.63	0.123	0.113	8.16	8.87	-18.0	-18.0	-9.8	27.9	29.4	18.9	0.15
940922	0700	2.52	0.113	0.113	8.87	8.87	-4.0	-4.0	-0.1	27.9	31.3	21.5	0.14
940922	1000	2.20	0.103	0.103	9.71	9.71	-4.0	-2.0	-9.1	30.8	36.6	19.5	0.16
940922	1300	1.73	0.103	0.103	9.71	9.71	-4.0	-4.0	-10.7	33.3	32.4	21.1	0.13
940922	1600	1.38	0.113	0.113	8.87	8.87	-4.0	-4.0	-12.1	29.8	29.0	22.2	0.13
940922	1900	1.25	0.113	0.113	8.87	8.87	-16.0	-16.0	-23.8	28.2	27.3	21.6	0.21
940922	2200	1.09	0.132	0.123	7.56	8.16	-40.0	-2.0	-17.3	36.6	32.8	31.4	0.21
940923	0100	1.11	0.093	0.103	10.72	9.71	4.0	4.0	-10.0	34.6	28.5	21.7	0.12
940923	0400	1.02	0.123	0.123	8.16	8.16	-36.0	2.0	-19.7	36.0	29.9	36.0	0.14
940923	0700	1.03	0.123	0.123	8.16	8.16	-38.0	-38.0	-24.2	38.2	29.4	26.0	0.23
940923	1000	0.96	0.123	0.113	8.16	8.87	-18.0	-18.0	-14.2	35.5	31.5	32.1	0.24

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	χ
940923	1600	0.87	0.123	0.123	8.16	8.16	-14.0	-16.0	-19.8	33.9	26.5	23.6	0.19
940923	1900	0.91	0.132	0.132	7.56	7.56	-20.0	-18.0	-15.1	37.5	27.4	22.8	0.26
940923	2200	0.78	0.132	0.132	7.56	7.56	-38.0	-36.0	-23.9	39.6	30.4	38.0	0.25
940924	0100	0.79	0.103	0.132	9.71	7.56	0.0	-2.0	-18.9	36.1	27.6	34.2	0.19
940924	0400	0.77	0.132	0.132	7.56	7.56	-14.0	-2.0	-17.3	35.9	28.9	28.9	0.13
940924	0700	0.76	0.142	0.142	7.04	7.04	-40.0	-40.0	-21.3	39.8	29.4	33.2	0.24
940924	1000	0.74	0.093	0.132	10.72	7.56	12.0	-10.0	-13.5	37.2	29.2	31.6	0.28
940924	1300	0.79	0.103	0.093	9.71	10.72	0.0	0.0	-8.5	30.9	26.2	19.2	0.19
940924	1600	0.76	0.093	0.093	10.72	10.72	8.0	2.0	-12.3	32.1	26.3	22.7	0.15
940924	1900	0.76	0.103	0.093	9.71	10.72	6.0	4.0	-11.2	32.7	26.6	23.5	0.27
940924	2200	0.72	0.103	0.103	9.71	9.71	2.0	4.0	-10.4	32.7	25.7	19.0	0.26
940925	0100	0.68	0.103	0.103	9.71	9.71	8.0	8.0	-7.0	30.9	27.5	20.6	0.22
940925	0400	0.64	0.103	0.103	9.71	9.71	2.0	4.0	-9.7	31.4	26.6	18.6	0.18
940925	0700	0.64	0.113	0.113	8.87	8.87	0.0	0.0	-11.7	30.6	26.3	18.4	0.25
940925	1000	0.60	0.113	0.113	8.87	8.87	2.0	-12.0	-15.0	31.8	28.2	21.9	0.24
940925	1300	0.55	0.132	0.103	7.56	9.71	-12.0	-12.0	-13.4	31.3	26.7	22.3	0.27
940925	1600	0.55	0.113	0.113	8.87	8.87	-4.0	-8.0	-10.8	31.7	27.9	24.2	0.27
940925	1900	0.61	0.113	0.113	8.87	8.87	6.0	4.0	-10.4	30.3	27.8	23.5	0.26
940925	2200	0.62	0.064	0.064	15.63	15.63	-8.0	-6.0	-3.5	33.8	29.6	22.0	0.33
940926	0100	0.69	0.064	0.064	15.63	15.63	-10.0	-12.0	-14.5	33.5	30.0	27.5	0.35
940926	0400	0.89	0.074	0.074	13.56	13.56	-8.0	-8.0	-21.9	33.1	26.6	22.1	0.23
940926	0700	0.98	0.074	0.074	13.56	13.56	12.0	-8.0	-14.2	33.7	27.2	30.0	0.23
940926	1000	1.03	0.074	0.074	13.56	13.56	4.0	2.0	-10.9	33.6	27.5	25.8	0.32
940926	1300	1.05	0.074	0.074	13.56	13.56	4.0	4.0	-5.8	29.1	27.8	23.5	0.30
940926	1600	1.02	0.083	0.083	11.98	11.98	8.0	6.0	1.6	27.7	27.0	23.4	0.26
940926	1900	1.00	0.083	0.083	11.98	11.98	0.0	0.0	-1.6	24.7	25.8	25.3	0.22
940926	2200	0.96	0.083	0.083	11.98	11.98	8.0	4.0	4.0	26.8	28.4	26.1	0.31
940927	0100	0.95	0.083	0.083	11.98	11.98	4.0	4.0	0.8	25.1	26.4	21.8	0.34
940927	0400	0.93	0.083	0.083	11.98	11.98	4.0	2.0	-2.9	26.7	27.4	24.8	0.30
940927	0700	0.94	0.083	0.083	11.98	11.98	-14.0	6.0	-5.0	26.4	27.7	23.8	0.27
940927	1000	0.93	0.083	0.083	11.98	11.98	-2.0	2.0	-6.0	28.5	29.5	23.9	0.26
940927	1300	0.84	0.083	0.083	11.98	11.98	10.0	8.0	-2.3	30.2	31.3	26.9	0.38
940927	1600	0.77	0.083	0.083	11.98	11.98	6.0	6.0	-0.9	29.1	29.2	24.7	0.32
940927	1900	0.70	0.093	0.093	10.72	10.72	-4.0	-2.0	-7.3	30.7	29.9	24.8	0.27
940927	2200	0.67	0.093	0.093	10.72	10.72	-2.0	-2.0	-9.9	29.3	29.8	26.6	0.39
940928	0100	0.65	0.093	0.093	10.72	10.72	-4.0	-2.0	-10.5	25.7	27.0	19.3	0.34
940928	0400	0.58	0.093	0.093	10.72	10.72	0.0	-16.0	-9.8	26.8	28.0	23.8	0.27
940928	0700	0.57	0.093	0.093	10.72	10.72	-4.0	-4.0	-10.9	25.6	26.1	20.3	0.27
940928	1000	0.53	0.093	0.093	10.72	10.72	-20.0	2.0	-17.6	29.9	28.7	25.7	0.32
940928	1300	0.48	0.093	0.093	10.72	10.72	-4.0	10.0	-12.9	35.8	26.2	24.8	0.48
940928	1600	0.48	0.093	0.083	10.72	11.98	-12.0	-14.0	-13.8	32.6	27.1	26.3	0.54
940928	1900	0.48	0.083	0.083	11.98	11.98	4.0	6.0	-7.1	31.0	27.5	22.1	0.29
940928	2200	0.51	0.083	0.083	11.98	11.98	6.0	6.0	-4.3	28.1	27.8	20.3	0.34
940929	0100	0.47	0.083	0.083	11.98	11.98	4.0	4.0	-4.0	30.4	29.0	20.7	0.45
940929	0400	0.45	0.083	0.083	11.98	11.98	10.0	6.0	-1.2	30.8	30.4	26.9	0.32
940929	0700	0.42	0.093	0.083	10.72	11.98	4.0	4.0	2.3	26.9	27.5	23.3	0.27
940929	1000	0.54	0.083	0.093	11.98	10.72	10.0	56.0	30.2	60.3	23.5	23.1	0.32
940929	1300	0.64	0.210	0.093	4.75	10.72	52.0	54.0	40.5	53.0	22.6	23.1	0.25
940929	1600	0.51	0.093	0.093	10.72	10.72	14.0	60.0	39.7	67.6	25.0	25.3	0.31
940929	1900	0.50	0.240	0.093	4.17	10.72	62.0	58.0	32.3	63.6	23.7	25.8	0.26
940929	2200	0.53	0.210	0.093	4.75	10.72	48.0	48.0	36.7	55.5	27.9	25.1	0.23
940930	0100	0.47	0.093	0.093	10.72	10.72	14.0	90.0	36.5	61.8	30.3	30.1	0.31
940930	0400	0.85	0.201	0.201	4.98	4.98	38.0	48.0	35.7	17.2	14.5	11.3	0.26

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
940930	0700	0.84	0.191	0.191	5.24	5.24	36.0	36.0	34.0	13.8	13.2	8.6	0.15
940930	1000	0.92	0.181	0.181	5.52	5.52	40.0	44.0	35.6	16.5	13.5	9.2	0.16
940930	1600	0.67	0.191	0.191	5.24	5.24	34.0	34.0	31.9	19.7	16.3	11.3	0.14
940930	1900	0.53	0.181	0.181	5.52	5.52	34.0	44.0	31.1	24.2	17.5	12.6	0.12
940930	2200	0.44	0.181	0.191	5.52	5.24	32.0	32.0	27.8	29.7	18.8	13.1	0.15
941001	0100	0.35	0.181	0.210	5.52	4.75	34.0	32.0	26.3	38.3	22.2	19.0	0.18
941001	0400	0.29	0.171	0.103	5.83	9.71	28.0	34.0	20.8	47.6	26.7	36.8	0.22
941001	0700	0.26	0.093	0.093	10.72	10.72	-2.0	0.0	11.4	44.7	30.6	27.3	0.31
941001	1000	0.26	0.103	0.103	9.71	9.71	-4.0	2.0	-1.5	36.7	38.0	27.5	0.29
941001	1300	0.27	0.103	0.103	9.71	9.71	-16.0	-14.0	-16.5	38.2	30.8	27.3	0.28
941001	1600	0.39	0.259	0.259	3.86	3.86	-58.0	-50.0	-45.2	25.5	17.1	9.7	0.23
941001	1900	0.29	0.279	0.103	3.59	9.71	-58.0	-58.0	-43.6	30.2	18.1	23.8	0.26
941001	2200	0.20	0.103	0.103	9.71	9.71	-36.0	-38.0	-38.1	32.0	22.7	26.3	0.36
941002	0100	0.19	0.103	0.103	9.71	9.71	-32.0	-38.0	-37.2	33.2	27.1	24.6	0.39
941002	0400	0.18	0.103	0.103	9.71	9.71	-36.0	-38.0	-38.9	35.7	30.6	24.0	0.42
941002	0700	0.19	0.103	0.103	9.71	9.71	-34.0	-36.0	-15.3	48.7	48.9	38.6	0.29
941002	1000	0.22	0.113	0.103	8.87	9.71	-30.0	-30.0	-10.3	51.7	41.8	36.1	0.29
941002	1300	0.26	0.103	0.113	9.71	8.87	-34.0	-38.0	-12.8	58.3	38.2	40.0	0.31
941002	1600	0.64	0.269	0.269	3.72	3.72	54.0	58.0	41.6	39.3	29.1	22.5	0.19
941002	1900	0.77	0.230	0.240	4.35	4.17	56.0	56.0	34.6	40.5	35.7	29.8	0.11
941002	2200	0.76	0.220	0.220	4.54	4.54	38.0	40.0	32.7	37.9	35.5	26.8	0.09
941003	0100	1.04	0.210	0.230	4.75	4.35	36.0	36.0	25.0	30.1	30.3	26.1	0.10
941003	0400	1.51	0.181	0.181	5.52	5.52	20.0	20.0	26.0	25.2	27.1	18.1	0.10
941003	0700	1.85	0.171	0.171	5.83	5.83	22.0	22.0	27.8	25.7	26.1	17.6	0.11
941003	1000	2.22	0.152	0.152	6.59	6.59	12.0	16.0	22.8	30.8	29.6	24.8	0.12
941003	1300	2.47	0.142	0.142	7.04	7.04	20.0	24.0	28.4	29.6	28.7	24.0	0.15
941003	1600	2.16	0.142	0.142	7.04	7.04	22.0	26.0	32.2	32.2	25.8	20.7	0.17
941003	1900	1.96	0.162	0.152	6.19	6.59	30.0	30.0	31.6	31.4	23.8	17.4	0.17
941003	2200	1.65	0.152	0.152	6.59	6.59	18.0	18.0	26.9	33.3	23.3	14.4	0.15
941004	0100	1.45	0.162	0.162	6.19	6.19	14.0	8.0	22.3	32.7	25.1	19.0	0.13
941004	0400	1.32	0.123	0.171	8.16	5.83	4.0	6.0	23.5	34.3	26.7	23.1	0.16
941004	0700	1.14	0.113	0.142	8.87	7.04	2.0	8.0	20.0	33.2	26.6	20.9	0.15
941004	1000	1.05	0.113	0.113	8.87	8.87	0.0	4.0	21.1	36.7	25.0	15.9	0.14
941004	1300	1.02	0.123	0.162	8.16	6.19	2.0	4.0	19.9	39.0	27.9	26.7	0.14
941004	1600	0.97	0.132	0.171	7.56	5.83	2.0	2.0	18.2	40.2	28.2	26.2	0.21
941004	1900	0.92	0.171	0.171	5.83	5.83	22.0	20.0	15.7	39.4	26.3	19.4	0.21
941004	2200	0.80	0.162	0.162	6.19	6.19	22.0	22.0	13.0	45.1	27.9	24.4	0.13
941005	0100	0.78	0.123	0.123	8.16	8.16	-30.0	-28.0	-0.6	48.4	29.4	18.7	0.12
941005	0400	0.75	0.132	0.132	7.56	7.56	-32.0	-30.0	4.4	47.2	33.2	28.5	0.21
941005	0700	0.68	0.123	0.123	8.16	8.16	-36.0	-34.0	8.6	50.9	31.5	32.4	0.20
941005	1000	0.57	0.142	0.152	7.04	6.59	-6.0	4.0	14.2	46.4	28.7	36.3	0.21
941005	1300	0.60	0.308	0.142	3.25	7.04	58.0	40.0	14.2	54.6	26.5	27.1	0.17
941005	1600	0.73	0.259	0.250	3.86	4.01	56.0	56.0	27.0	55.9	26.4	23.0	0.17
941005	1900	0.62	0.259	0.171	3.86	5.83	46.0	20.0	16.0	50.4	27.0	36.6	0.18
941005	2200	0.58	0.240	0.191	4.17	5.24	42.0	42.0	16.9	46.8	25.6	26.9	0.14
941006	0100	0.53	0.191	0.142	5.24	7.04	28.0	34.0	13.0	49.1	26.5	29.8	0.13
941006	0400	0.55	0.191	0.191	5.24	5.24	26.0	28.0	15.7	48.2	26.5	28.1	0.18
941006	0700	0.59	0.269	0.269	3.72	3.72	26.0	36.0	20.8	43.4	25.4	23.6	0.18
941006	1000	0.57	0.259	0.259	3.86	3.86	48.0	46.0	27.5	42.4	25.8	22.5	0.17
941006	1300	0.59	0.250	0.240	4.01	4.17	38.0	40.0	23.2	39.9	24.8	21.7	0.13
941006	1600	0.60	0.230	0.220	4.35	4.54	34.0	36.0	20.3	42.3	25.9	22.0	0.18
941006	1900	0.55	0.240	0.220	4.17	4.54	34.0	40.0	16.3	44.2	27.8	27.6	0.20
941006	2200	0.47	0.152	0.152	6.59	6.59	-14.0	-14.0	10.8	44.2	29.5	18.8	0.18

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
941007	0100	0.46	0.162	0.162	6.19	6.19	-10.0	-12.0	6.4	38.5	29.4	16.2	0.14
941007	0400	0.49	0.201	0.201	4.98	4.98	34.0	-8.0	6.5	39.0	34.7	33.6	0.17
941007	0700	0.53	0.298	0.210	3.35	4.75	18.0	-8.0	8.7	40.0	33.3	31.9	0.24
941007	1000	0.52	0.240	0.289	4.17	3.47	22.0	-6.0	9.0	41.6	33.6	34.0	0.15
941007	1300	0.50	0.152	0.279	6.59	3.59	-4.0	-10.0	9.0	42.5	35.5	37.6	0.13
941007	1600	0.56	0.289	0.269	3.47	3.72	12.0	-6.0	-2.8	37.9	33.7	36.9	0.14
941007	1900	0.75	0.240	0.240	4.17	4.17	-14.0	-14.0	-3.1	33.2	32.1	35.1	0.14
941007	2200	0.74	0.240	0.230	4.17	4.35	2.0	2.0	4.1	33.7	31.9	32.9	0.12
941008	0100	0.62	0.210	0.230	4.75	4.35	6.0	2.0	0.5	34.0	34.3	31.4	0.10
941008	0400	0.53	0.220	0.240	4.54	4.17	10.0	6.0	2.5	34.8	35.3	36.6	0.13
941008	0700	0.56	0.210	0.230	4.75	4.35	2.0	2.0	1.7	36.6	40.4	42.2	0.19
941008	1000	0.59	0.230	0.250	4.35	4.01	4.0	4.0	7.0	44.7	46.0	52.8	0.14
941008	1300	0.52	0.250	0.230	4.01	4.35	-2.0	0.0	-5.8	35.8	37.0	25.6	0.14
941008	1600	0.51	0.220	0.181	4.54	5.52	0.0	0.0	-10.8	38.4	39.5	37.1	0.14
941008	1900	0.59	0.210	0.210	4.75	4.75	8.0	2.0	-13.6	41.9	41.6	43.4	0.14
941008	2200	0.55	0.152	0.152	6.59	6.59	-42.0	-42.0	-18.4	41.7	39.3	35.8	0.16
941009	0100	0.54	0.162	0.162	6.19	6.19	-44.0	-42.0	-29.5	39.2	37.6	34.7	0.14
941009	0400	0.56	0.171	0.171	5.83	5.83	-40.0	-40.0	-28.9	37.0	35.2	33.2	0.13
941009	0700	0.58	0.181	0.181	5.52	5.52	-48.0	-44.0	-36.7	38.7	37.1	37.9	0.16
941009	1000	0.55	0.162	0.162	6.19	6.19	-46.0	-46.0	-28.5	40.2	37.8	35.2	0.20
941009	1300	0.47	0.132	0.152	7.56	6.59	-40.0	-42.0	-36.1	39.0	37.3	35.4	0.21
941009	1600	0.43	0.142	0.142	7.04	7.04	-38.0	-38.0	-31.9	35.7	31.6	34.9	0.17
941009	1900	0.46	0.152	0.152	6.59	6.59	-38.0	-38.0	-36.9	33.3	31.1	34.4	0.20
941009	2200	0.55	0.132	0.132	7.56	7.56	-24.0	-24.0	-33.4	30.1	27.0	15.6	0.22
941010	0100	0.59	0.142	0.142	7.04	7.04	-36.0	-38.0	-33.6	26.5	25.9	18.7	0.26
941010	0400	1.48	0.201	0.201	4.98	4.98	50.0	50.0	43.3	20.5	18.2	9.0	0.22
941010	0700	1.70	0.171	0.171	5.83	5.83	44.0	44.0	41.4	23.8	21.3	14.3	0.20
941010	1000	1.81	0.162	0.162	6.19	6.19	38.0	36.0	41.7	23.0	20.7	12.0	0.20
941010	1300	1.68	0.152	0.152	6.59	6.59	36.0	36.0	37.8	28.6	22.8	20.2	0.20
941010	1600	1.44	0.162	0.162	6.19	6.19	24.0	32.0	35.4	30.1	21.4	17.1	0.19
941010	1900	1.49	0.142	0.162	7.04	6.19	12.0	18.0	33.4	31.6	21.0	18.0	0.18
941010	2200	1.74	0.162	0.162	6.19	6.19	24.0	18.0	32.3	30.1	22.5	13.7	0.17
941011	0100	1.89	0.152	0.162	6.59	6.19	22.0	24.0	29.7	26.7	21.1	13.7	0.17
941011	0400	2.07	0.142	0.142	7.04	7.04	18.0	20.0	27.7	23.9	21.2	14.0	0.15
941011	0700	2.11	0.142	0.142	7.04	7.04	18.0	20.0	27.1	24.0	21.9	14.9	0.16
941011	1000	1.88	0.142	0.142	7.04	7.04	16.0	18.0	27.8	26.8	24.2	18.7	0.16
941011	1300	1.70	0.142	0.142	7.04	7.04	18.0	20.0	27.2	28.5	25.1	20.4	0.15
941011	1600	1.60	0.142	0.142	7.04	7.04	16.0	16.0	27.5	29.0	25.1	17.6	0.14
941011	1900	1.63	0.123	0.171	8.16	5.83	10.0	12.0	21.9	29.2	26.0	22.7	0.11
941011	2200	1.65	0.181	0.181	5.52	5.52	24.0	14.0	21.0	29.2	27.0	20.6	0.11
941012	0100	1.55	0.171	0.162	5.83	6.19	22.0	14.0	21.8	29.6	27.4	22.4	0.11
941012	0400	1.55	0.171	0.171	5.83	5.83	20.0	14.0	23.3	29.3	25.8	21.3	0.11
941012	0700	1.91	0.162	0.162	6.19	6.19	18.0	10.0	20.8	27.4	26.2	20.2	0.10
941012	1000	2.29	0.142	0.142	7.04	7.04	12.0	12.0	17.4	25.3	25.5	17.9	0.11
941012	1300	2.32	0.142	0.142	7.04	7.04	10.0	10.0	17.7	27.6	26.5	17.0	0.12
941012	1600	2.35	0.132	0.142	7.56	7.04	8.0	6.0	13.1	28.4	25.5	19.9	0.12
941012	1900	2.24	0.142	0.142	7.04	7.04	10.0	4.0	12.1	27.6	25.7	17.5	0.11
941012	2200	2.30	0.142	0.142	7.04	7.04	8.0	6.0	8.9	26.3	25.8	20.1	0.10
941013	0100	2.24	0.142	0.142	7.04	7.04	8.0	6.0	13.3	27.4	26.1	18.1	0.12
941013	0400	2.19	0.142	0.142	7.04	7.04	8.0	6.0	10.5	29.6	26.7	24.0	0.12
941013	0700	1.84	0.152	0.142	6.59	7.04	10.0	8.0	11.4	31.5	28.9	28.7	0.10
941013	1000	1.70	0.123	0.123	8.16	8.16	2.0	6.0	11.6	32.4	33.2	21.6	0.12
941013	1300	1.74	0.113	0.113	8.87	8.87	4.0	4.0	5.2	36.8	39.3	24.0	0.12
941013	1600	1.68	0.132	0.123	7.56	8.16	-38.0	-6.0	-0.1	37.8	39.8	26.5	0.13

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
941013	1900	1.71	0.123	0.123	8.16	8.16	-6.0	-6.0	-7.3	29.7	31.9	24.2	0.11
941013	2200	1.61	0.123	0.123	8.16	8.16	-6.0	-4.0	0.4	32.1	35.3	20.0	0.11
941014	0100	1.64	0.123	0.123	8.16	8.16	-2.0	0.0	0.3	35.6	38.4	27.5	0.13
941014	0400	1.79	0.132	0.123	7.56	8.16	-4.0	-4.0	-4.1	37.4	37.6	29.1	0.13
941014	0700	1.87	0.113	0.113	8.87	8.87	-8.0	-8.0	-5.4	36.5	35.6	24.6	0.13
941014	1000	2.07	0.113	0.113	8.87	8.87	-10.0	-10.0	-5.6	33.9	35.0	23.9	0.14
941014	1300	2.44	0.113	0.113	8.87	8.87	-10.0	-14.0	-9.2	33.4	35.5	24.6	0.14
941014	1600	2.93	0.103	0.103	9.71	9.71	-14.0	-14.0	8.5	49.6	33.7	23.5	0.14
941014	1900	3.19	0.103	0.103	9.71	9.71	-16.0	-16.0	6.9	44.0	31.0	20.7	0.14
941014	2200	3.19	0.103	0.103	9.71	9.71	-14.0	-12.0	2.7	38.5	29.8	19.9	0.13
941015	0100	3.27	0.103	0.103	9.71	9.71	-8.0	-10.0	3.4	35.7	31.0	19.8	0.14
941015	0400	3.27	0.093	0.103	10.72	9.71	-10.0	-12.0	8.8	36.8	32.4	25.5	0.16
941015	0700	3.39	0.093	0.093	10.72	10.72	-10.0	-10.0	5.3	33.7	28.7	15.6	0.14
941015	1000	3.60	0.093	0.093	10.72	10.72	-8.0	-8.0	-0.8	28.4	28.3	16.1	0.13
941015	1300	4.05	0.093	0.083	10.72	11.98	-8.0	-6.0	2.0	30.0	29.0	19.8	0.14
941015	1600	4.03	0.083	0.093	11.98	10.72	-6.0	-4.0	8.6	30.4	29.0	20.6	0.15
941015	1900	3.69	0.093	0.093	10.72	10.72	4.0	6.0	14.0	30.5	27.9	20.5	0.16
941015	2200	3.51	0.093	0.093	10.72	10.72	-14.0	10.0	9.9	29.3	28.5	23.1	0.14
941016	0100	3.30	0.083	0.083	11.98	11.98	2.0	2.0	10.8	29.0	28.3	19.6	0.14
941016	0400	2.99	0.093	0.093	10.72	10.72	-6.0	4.0	10.8	30.2	29.2	24.1	0.14
941016	0700	2.86	0.093	0.093	10.72	10.72	-12.0	-10.0	7.7	31.1	28.2	19.6	0.15
941016	1000	2.71	0.093	0.093	10.72	10.72	-6.0	-4.0	3.1	27.5	28.1	20.7	0.12
941016	1300	2.52	0.093	0.093	10.72	10.72	-6.0	-4.0	4.9	26.1	26.5	17.8	0.12
941016	1600	2.41	0.083	0.093	11.98	10.72	-14.0	-12.0	5.6	27.1	24.5	18.1	0.17
941016	1900	2.26	0.083	0.083	11.98	11.98	-2.0	-2.0	6.2	27.6	25.1	18.4	0.15
941016	2200	2.07	0.093	0.093	10.72	10.72	0.0	-2.0	4.0	25.8	24.9	21.3	0.12
941017	0100	2.04	0.093	0.093	10.72	10.72	2.0	4.0	4.5	26.4	26.5	22.9	0.11
941017	0400	1.90	0.093	0.093	10.72	10.72	-4.0	-2.0	1.9	25.6	24.6	21.5	0.16
941017	0700	1.86	0.093	0.093	10.72	10.72	-2.0	-4.0	4.4	26.3	25.4	19.8	0.15
941017	1000	1.71	0.093	0.093	10.72	10.72	0.0	0.0	4.6	28.3	27.4	24.3	0.11
941017	1300	1.79	0.093	0.093	10.72	10.72	-4.0	-6.0	4.7	26.9	26.4	19.7	0.10
941017	1600	1.77	0.093	0.093	10.72	10.72	4.0	-4.0	7.2	27.3	26.2	21.9	0.18
941017	1900	1.60	0.093	0.093	10.72	10.72	-2.0	-4.0	7.1	28.7	27.5	24.4	0.18
941017	2200	1.63	0.093	0.093	10.72	10.72	0.0	8.0	6.9	27.5	27.8	26.0	0.12
941018	0100	1.71	0.093	0.093	10.72	10.72	-4.0	-2.0	4.7	27.4	26.3	23.8	0.12
941018	0400	1.76	0.093	0.093	10.72	10.72	-4.0	-2.0	4.4	25.0	24.6	18.8	0.20
941018	0700	1.69	0.083	0.083	11.98	11.98	-6.0	-6.0	0.2	24.1	24.2	18.4	0.23
941018	1000	1.61	0.083	0.083	11.98	11.98	-12.0	0.0	-3.1	23.0	23.4	19.1	0.16
941018	1300	1.58	0.083	0.083	11.98	11.98	0.0	4.0	3.4	23.6	23.6	22.2	0.13
941018	1600	1.58	0.083	0.083	11.98	11.98	2.0	2.0	5.6	24.5	24.6	22.3	0.18
941018	1900	1.50	0.083	0.083	11.98	11.98	6.0	-2.0	0.7	24.8	24.6	26.6	0.26
941018	2200	1.46	0.083	0.083	11.98	11.98	4.0	4.0	-0.9	23.9	23.7	20.8	0.22
941019	0100	1.55	0.083	0.083	11.98	11.98	2.0	-8.0	-1.5	22.4	22.0	22.8	0.20
941019	0400	1.68	0.064	0.074	15.63	13.56	-8.0	-8.0	-2.8	21.8	21.5	22.1	0.25
941019	0700	1.70	0.064	0.064	15.63	15.63	4.0	2.0	0.7	23.4	23.6	24.2	0.22
941019	1000	1.59	0.074	0.074	13.56	13.56	6.0	6.0	2.0	23.9	23.7	23.9	0.21
941019	1300	1.62	0.074	0.074	13.56	13.56	4.0	-6.0	-0.8	22.0	22.0	23.0	0.19
941019	1600	1.68	0.074	0.074	13.56	13.56	8.0	4.0	1.4	24.9	24.7	27.7	0.22
941019	1900	1.59	0.064	0.064	15.63	15.63	-4.0	-2.0	-3.9	23.7	23.3	22.3	0.28
941019	2200	1.58	0.074	0.064	13.56	15.63	6.0	-8.0	0.9	24.0	24.0	25.2	0.19
941020	0100	1.44	0.064	0.074	15.63	13.56	-2.0	0.0	-0.4	23.3	23.1	26.0	0.19
941020	0400	1.30	0.074	0.074	13.56	13.56	2.0	2.0	-1.6	23.0	23.2	22.0	0.27
941020	0700	1.22	0.074	0.074	13.56	13.56	6.0	6.0	-0.8	25.9	25.3	25.8	0.33

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
941020	1000	1.12	0.074	0.074	13.56	13.56	6.0	4.0	1.9	23.9	24.2	25.3	0.32
941020	1300	1.13	0.074	0.074	13.56	13.56	-4.0	-6.0	-1.1	22.6	22.9	22.1	0.22
941020	1600	1.05	0.083	0.083	11.98	11.98	4.0	4.0	2.1	25.0	25.3	22.9	0.30
941020	1900	1.04	0.083	0.083	11.98	11.98	6.0	4.0	-3.1	23.8	24.1	22.5	0.44
941020	2200	0.89	0.083	0.083	11.98	11.98	0.0	2.0	0.9	22.9	23.8	18.7	0.28
941021	0100	0.85	0.083	0.083	11.98	11.98	-2.0	-2.0	7.6	22.8	22.6	16.3	0.20
941021	0400	0.76	0.093	0.083	10.72	11.98	0.0	0.0	11.3	26.1	23.4	22.9	0.25
941021	0700	0.77	0.093	0.093	10.72	10.72	4.0	4.0	17.5	49.9	24.3	25.0	0.40
941021	1000	0.73	0.093	0.083	10.72	11.98	-2.0	12.0	15.4	40.5	24.4	28.4	0.38
941021	1300	0.75	0.083	0.093	11.98	10.72	-4.0	-2.0	13.5	35.0	21.9	22.2	0.21
941021	1600	0.73	0.093	0.093	10.72	10.72	-4.0	-4.0	17.1	49.8	24.3	22.5	0.23
941021	1900	0.69	0.093	0.093	10.72	10.72	-4.0	-12.0	18.3	50.1	26.1	23.7	0.23
941021	2200	0.69	0.093	0.093	10.72	10.72	-14.0	46.0	13.8	46.5	20.2	23.2	0.27
941022	0100	0.59	0.103	0.103	9.71	9.71	-10.0	40.0	13.1	45.5	22.3	23.4	0.27
941022	0400	0.58	0.093	0.103	10.72	9.71	-4.0	-6.0	13.3	41.6	23.1	24.6	0.22
941022	0700	0.56	0.103	0.103	9.71	9.71	12.0	10.0	15.0	36.8	23.7	25.8	0.31
941022	1000	0.53	0.074	0.113	13.56	8.87	-10.0	-8.0	4.7	32.6	25.6	28.6	0.36
941022	1300	0.52	0.103	0.113	9.71	8.87	6.0	6.0	9.8	30.4	26.9	31.2	0.23
941022	1600	0.52	0.074	0.074	13.56	13.56	-8.0	-6.0	3.5	30.5	29.8	21.1	0.26
941022	1900	0.48	0.123	0.113	8.16	8.87	-34.0	10.0	6.9	34.5	31.6	34.6	0.24
941022	2200	0.47	0.074	0.074	13.56	13.56	2.0	12.0	6.4	34.4	31.1	25.8	0.29
941023	0100	0.44	0.074	0.113	13.56	8.87	2.0	6.0	9.1	35.3	31.7	30.3	0.33
941023	0400	0.44	0.103	0.103	9.71	9.71	-2.0	6.0	3.8	33.7	32.6	28.9	0.34
941023	0700	0.45	0.123	0.113	8.16	8.87	-34.0	4.0	-11.9	37.3	35.5	41.2	0.43
941023	1000	0.49	0.113	0.103	8.87	9.71	-38.0	-52.0	-35.9	47.4	33.9	39.1	0.30
941023	1300	0.48	0.083	0.113	11.98	8.87	0.0	-40.0	-31.4	43.1	27.3	31.9	0.33
941023	1600	0.55	0.152	0.152	6.59	6.59	-46.0	-44.0	-35.8	37.9	24.6	10.1	0.26
941023	1900	0.60	0.142	0.142	7.04	7.04	-42.0	-42.0	-39.7	34.4	25.3	26.1	0.25
941023	2200	0.56	0.142	0.142	7.04	7.04	-44.0	-42.0	-32.1	40.0	27.8	19.8	0.23
941024	0100	0.54	0.142	0.083	7.04	11.98	-42.0	-40.0	-33.4	39.0	27.6	19.2	0.26
941024	0400	0.55	0.142	0.083	7.04	11.98	-40.0	-40.0	-25.3	41.4	29.2	21.0	0.21
941024	0700	0.68	0.269	0.269	3.72	3.72	34.0	-42.0	5.8	71.3	32.9	26.8	0.21
941024	1000	0.68	0.230	0.230	4.35	4.35	56.0	52.0	13.8	67.3	31.2	22.4	0.19
941024	1300	0.63	0.220	0.083	4.54	11.98	52.0	52.0	8.9	65.0	28.1	28.8	0.17
941024	1600	0.63	0.210	0.083	4.75	11.98	42.0	38.0	8.3	59.2	27.6	24.0	0.18
941024	1900	0.65	0.074	0.074	13.56	13.56	6.0	-36.0	10.6	57.6	34.7	25.0	0.20
941024	2200	0.58	0.074	0.074	13.56	13.56	2.0	-10.0	0.5	50.4	40.8	27.8	0.22
941025	0100	0.55	0.074	0.074	13.56	13.56	-2.0	-6.0	-5.5	40.1	38.1	24.6	0.27
941025	0400	0.55	0.074	0.074	13.56	13.56	-20.0	-20.0	-5.1	37.2	39.7	27.7	0.25
941025	0700	0.53	0.074	0.074	13.56	13.56	2.0	-6.0	-17.9	34.5	35.9	21.8	0.30
941025	1000	0.50	0.074	0.074	13.56	13.56	-10.0	-8.0	-23.3	35.0	34.0	24.2	0.34
941025	1300	0.46	0.083	0.074	11.98	13.56	-6.0	-22.0	-23.9	34.2	31.5	27.9	0.36
941025	1600	0.46	0.113	0.083	8.87	11.98	-22.0	-22.0	-19.5	33.1	32.4	25.6	0.36
941025	1900	0.50	0.074	0.083	13.56	11.98	2.0	0.0	1.8	36.7	32.2	23.9	0.24
941025	2200	0.50	0.083	0.083	11.98	11.98	-4.0	-12.0	12.9	50.2	33.0	21.9	0.28
941026	0100	0.67	0.289	0.083	3.47	11.98	52.0	52.0	27.1	52.4	28.3	21.8	0.32
941026	0400	0.89	0.250	0.250	4.01	4.01	16.0	18.0	8.6	36.4	29.9	29.1	0.16
941026	0700	1.14	0.220	0.210	4.54	4.75	46.0	48.0	31.3	37.5	32.5	33.0	0.16
941026	1000	1.43	0.191	0.191	5.24	5.24	44.0	48.0	38.1	31.9	27.9	25.6	0.19
941026	1300	1.70	0.171	0.171	5.83	5.83	42.0	42.0	38.3	26.3	24.8	21.6	0.16
941026	1600	1.83	0.162	0.162	6.19	6.19	40.0	40.0	36.7	22.2	19.7	15.0	0.16
941026	1900	1.66	0.152	0.152	6.59	6.59	22.0	24.0	31.0	26.8	21.6	17.4	0.17
941026	2200	1.42	0.162	0.162	6.19	6.19	28.0	32.0	29.1	30.1	22.1	22.1	0.18

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
941027	0100	1.18	0.162	0.162	6.19	6.19	36.0	36.0	27.1	30.8	21.1	16.2	0.16
941027	0400	1.08	0.171	0.181	5.83	5.52	26.0	30.0	21.9	33.4	20.1	16.8	0.15
941027	0700	1.15	0.181	0.181	5.52	5.52	28.0	44.0	24.4	30.6	20.1	15.1	0.13
941027	1000	1.14	0.171	0.171	5.83	5.83	24.0	24.0	26.0	33.1	20.8	13.7	0.17
941027	1300	1.13	0.181	0.181	5.52	5.52	32.0	46.0	27.8	36.4	21.3	19.2	0.19
941027	1600	0.99	0.181	0.181	5.52	5.52	34.0	38.0	20.7	39.6	20.8	14.1	0.15
941027	1900	0.93	0.181	0.181	5.52	5.52	34.0	34.0	20.5	40.5	25.3	19.7	0.12
941027	2200	0.89	0.191	0.181	5.24	5.52	32.0	30.0	19.8	40.5	26.5	22.2	0.13
941028	0100	0.88	0.171	0.171	5.83	5.83	26.0	26.0	16.3	41.9	26.1	19.4	0.13
941028	0400	0.82	0.132	0.123	7.56	8.16	-2.0	-10.0	11.6	42.5	25.9	25.0	0.12
941028	0700	0.79	0.132	0.132	7.56	7.56	-2.0	-8.0	11.9	42.7	26.7	23.4	0.11
941028	1000	0.79	0.113	0.132	8.87	7.56	-18.0	-18.0	7.2	41.3	26.4	21.5	0.12
941028	1300	0.75	0.132	0.132	7.56	7.56	0.0	-2.0	10.1	40.0	29.7	22.0	0.13
941028	1600	0.70	0.113	0.113	8.87	8.87	-10.0	-8.0	7.6	36.4	30.3	21.1	0.14
941028	1900	0.69	0.113	0.123	8.87	8.16	-16.0	-10.0	4.0	34.1	30.9	23.2	0.14
941028	2200	0.71	0.093	0.123	10.72	8.16	-18.0	-12.0	0.4	32.5	31.6	27.5	0.15
941029	0100	0.70	0.083	0.083	11.98	11.98	-2.0	-16.0	-1.6	29.4	30.2	21.6	0.22
941029	0400	0.70	0.083	0.083	11.98	11.98	0.0	0.0	-7.2	28.2	30.1	18.9	0.25
941029	0700	0.68	0.083	0.093	11.98	10.72	0.0	0.0	-8.7	27.8	29.7	21.7	0.14
941029	1000	0.67	0.093	0.093	10.72	10.72	-6.0	-2.0	-10.8	28.8	29.4	22.0	0.16
941029	1300	0.62	0.093	0.093	10.72	10.72	0.0	-10.0	-15.1	30.9	31.9	23.9	0.19
941029	1600	0.60	0.093	0.103	10.72	9.71	-2.0	-10.0	-17.1	30.9	31.8	20.4	0.20
941029	1900	0.58	0.093	0.103	10.72	9.71	0.0	0.0	-20.6	32.6	30.5	23.0	0.15
941029	2200	0.59	0.132	0.103	7.56	9.71	-14.0	-14.0	-26.0	36.6	29.9	24.2	0.17
941030	0100	0.63	0.171	0.103	5.83	9.71	-44.0	-12.0	-26.8	38.7	28.4	24.6	0.19
941030	0400	0.64	0.152	0.132	6.59	7.56	-42.0	-44.0	-26.2	39.7	25.6	27.6	0.19
941030	0700	0.59	0.162	0.123	6.19	8.16	-40.0	-40.0	-29.4	35.9	25.9	25.4	0.15
941030	1000	0.64	0.162	0.162	6.19	6.19	-44.0	-44.0	-31.2	34.6	23.8	13.3	0.15
941030	1300	0.76	0.162	0.152	6.19	6.59	-40.0	-40.0	-37.4	25.5	22.2	22.0	0.19
941030	1600	0.77	0.132	0.132	7.56	7.56	-38.0	-38.0	-39.6	24.5	23.0	20.2	0.20
941030	1900	0.75	0.123	0.123	8.16	8.16	-36.0	-36.0	-37.5	22.7	23.0	21.0	0.15
941030	2200	0.76	0.142	0.142	7.04	7.04	-40.0	-38.0	-36.8	24.7	22.5	17.1	0.14
941031	0100	0.77	0.123	0.132	8.16	7.56	-40.0	-38.0	-37.4	24.3	22.7	28.6	0.20
941031	0400	0.78	0.132	0.123	7.56	8.16	-40.0	-40.0	-41.3	25.3	24.6	21.3	0.18
941031	0700	0.81	0.132	0.132	7.56	7.56	-40.0	-40.0	-39.9	23.2	23.2	17.3	0.12
941031	1000	0.94	0.142	0.132	7.04	7.56	-38.0	-38.0	-33.6	27.5	28.8	18.2	0.12
941031	1300	1.05	0.142	0.142	7.04	7.04	-36.0	-36.0	-30.4	28.3	28.9	21.1	0.14
941031	1600	0.96	0.142	0.142	7.04	7.04	-28.0	-28.0	-26.2	28.0	29.4	15.5	0.15
941031	1900	0.80	0.113	0.132	8.87	7.56	-28.0	-28.0	-33.8	26.6	26.3	21.1	0.15
941031	2200	0.71	0.123	0.123	8.16	8.16	-36.0	-36.0	-33.8	26.1	24.7	20.0	0.14
941101	0100	0.66	0.132	0.123	7.56	8.16	-38.0	-38.0	-37.1	27.0	24.5	21.4	0.20
941101	0400	0.65	0.142	0.132	7.04	7.56	-42.0	-40.0	-39.4	26.8	23.1	23.7	0.26
941101	0700	0.67	0.123	0.132	8.16	7.56	-40.0	-40.0	-39.3	21.6	18.2	20.3	0.22
941101	1000	0.67	0.142	0.123	7.04	8.16	-38.0	-38.0	-37.4	21.4	17.0	17.1	0.17
941101	1300	0.85	0.152	0.132	6.59	7.56	-42.0	-40.0	-40.6	20.0	16.0	16.3	0.21
941101	1600	1.10	0.123	0.113	8.16	8.87	-38.0	-40.0	-39.9	15.4	15.5	14.7	0.22
941101	1900	0.99	0.113	0.103	8.87	9.71	-26.0	-26.0	-20.6	21.4	17.2	18.1	0.22
941101	2200	0.77	0.210	0.103	4.75	9.71	54.0	58.0	12.3	83.6	16.6	19.9	0.17
941102	0100	0.61	0.103	0.103	9.71	9.71	-30.0	-32.0	3.2	84.5	19.7	18.9	0.22
941102	0400	0.49	0.103	0.103	9.71	9.71	-22.0	-38.0	-13.9	36.7	25.9	23.3	0.34
941102	0700	0.43	0.093	0.103	10.72	9.71	-36.0	-36.0	-26.8	33.8	28.4	22.8	0.34
941102	1000	0.42	0.103	0.103	9.71	9.71	-26.0	-26.0	-6.8	41.0	25.9	26.6	0.35
941102	1300	0.49	0.289	0.074	3.47	13.56	90.0	90.0	21.1	84.8	24.0	21.7	0.26
941102	1600	0.53	0.259	0.074	3.86	13.56	90.0	90.0	28.9	84.2	27.1	20.2	0.31

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	χ
941102	1900	0.49	0.074	0.074	13.56	13.56	-10.0	58.0	18.8	78.7	28.2	18.6	0.33
941102	2200	0.43	0.074	0.074	13.56	13.56	-14.0	-14.0	8.7	57.5	29.2	22.9	0.29
941103	0100	0.43	0.083	0.083	11.98	11.98	-2.0	-18.0	5.0	47.5	33.3	25.0	0.35
941103	0400	0.44	0.074	0.103	13.56	9.71	-10.0	-8.0	4.2	48.8	30.3	27.6	0.28
941103	0700	0.45	0.103	0.103	9.71	9.71	-34.0	-16.0	1.3	45.6	30.4	27.1	0.25
941103	1000	0.46	0.103	0.103	9.71	9.71	-20.0	-10.0	4.0	40.7	31.1	29.8	0.22
941103	1300	0.52	0.181	0.103	5.52	9.71	28.0	-4.0	14.7	40.5	27.8	29.1	0.16
941103	1600	0.53	0.103	0.103	9.71	9.71	-22.0	-6.0	4.7	47.7	34.3	23.8	0.24
941103	1900	0.48	0.103	0.103	9.71	9.71	-20.0	2.0	4.6	44.4	33.9	26.6	0.22
941103	2200	0.43	0.103	0.103	9.71	9.71	-24.0	-2.0	-1.7	37.0	32.4	28.8	0.20
941104	0100	0.43	0.113	0.103	8.87	9.71	-22.0	0.0	-6.5	30.9	29.3	28.4	0.18
941104	0400	0.43	0.103	0.103	9.71	9.71	-18.0	-16.0	-10.7	33.6	29.2	22.8	0.29
941104	0700	0.44	0.103	0.103	9.71	9.71	-22.0	-20.0	-16.3	33.5	32.4	33.5	0.26
941104	1000	0.42	0.103	0.103	9.71	9.71	-20.0	-20.0	-23.5	31.1	30.6	26.1	0.32
941104	1300	0.42	0.113	0.103	8.87	9.71	-26.0	-10.0	-16.4	26.9	27.0	26.7	0.18
941104	1600	0.44	0.103	0.103	9.71	9.71	-8.0	-10.0	-16.5	27.3	26.7	23.7	0.23
941104	1900	0.41	0.103	0.103	9.71	9.71	-14.0	-16.0	-20.2	29.1	25.6	21.2	0.34
941104	2200	0.42	0.113	0.113	8.87	8.87	-20.0	-18.0	-19.5	26.8	23.8	18.3	0.31
941105	0100	0.42	0.113	0.113	8.87	8.87	-16.0	-16.0	-22.5	25.3	23.8	19.2	0.21
941105	0400	0.42	0.113	0.113	8.87	8.87	-20.0	-18.0	-21.0	25.8	25.7	21.9	0.29
941105	0700	0.41	0.113	0.113	8.87	8.87	-14.0	-16.0	-21.4	26.6	25.0	21.2	0.29
941105	1000	0.38	0.103	0.103	9.71	9.71	-14.0	-16.0	-18.4	28.2	26.9	25.4	0.38
941105	1300	0.37	0.113	0.103	8.87	9.71	-14.0	-16.0	-14.4	25.8	24.9	24.5	0.27
941105	1600	0.39	0.113	0.113	8.87	8.87	-16.0	-16.0	-19.4	24.4	23.1	19.9	0.26
941105	1900	0.41	0.113	0.113	8.87	8.87	-16.0	-16.0	-19.0	23.9	22.0	18.2	0.31
941105	2200	0.41	0.113	0.113	8.87	8.87	-14.0	-16.0	-26.1	28.6	22.3	21.4	0.36
941106	0100	0.41	0.113	0.113	8.87	8.87	-16.0	-16.0	-25.2	28.0	21.5	18.2	0.21
941106	0400	0.41	0.103	0.113	9.71	8.87	-16.0	-16.0	-20.1	27.9	23.4	24.7	0.25
941106	0700	0.41	0.113	0.113	8.87	8.87	-16.0	-18.0	-20.7	27.3	23.7	20.4	0.33
941106	1000	0.47	0.093	0.103	10.72	9.71	-10.0	-16.0	-24.5	26.8	22.9	17.7	0.39
941106	1300	0.49	0.103	0.103	9.71	9.71	-18.0	-14.0	-21.4	24.9	21.0	15.1	0.30
941106	1600	0.58	0.083	0.083	11.98	11.98	-8.0	-12.0	-20.5	25.5	19.0	19.3	0.26
941106	1900	0.64	0.083	0.083	11.98	11.98	-6.0	-10.0	-22.3	29.8	19.0	22.1	0.45
941106	2200	0.68	0.083	0.083	11.98	11.98	-8.0	-12.0	-21.1	28.3	19.8	21.3	0.27
941107	0100	0.69	0.083	0.083	11.98	11.98	-8.0	-10.0	-14.9	25.1	23.2	21.3	0.26
941107	0400	1.13	0.083	0.083	11.98	11.98	-8.0	58.0	28.7	67.8	16.5	20.1	0.25
941107	0700	2.10	0.171	0.152	5.83	6.59	46.0	44.0	36.6	23.1	15.6	10.6	0.22
941107	1000	2.27	0.142	0.142	7.04	7.04	38.0	38.0	33.1	23.4	17.0	11.5	0.22
941107	1300	1.87	0.132	0.142	7.56	7.04	22.0	26.0	28.6	30.9	19.2	12.2	0.19
941107	1600	1.50	0.142	0.083	7.04	11.98	22.0	24.0	20.5	31.6	21.4	21.5	0.13
941107	1900	1.27	0.152	0.083	6.59	11.98	26.0	26.0	19.0	36.8	25.8	21.1	0.13
941107	2200	1.08	0.083	0.083	11.98	11.98	-6.0	8.0	16.2	40.4	28.3	22.4	0.14
941108	0100	0.99	0.083	0.083	11.98	11.98	-10.0	6.0	16.0	41.0	30.4	20.4	0.14
941108	0400	0.93	0.083	0.083	11.98	11.98	-12.0	-16.0	14.3	39.9	33.3	16.5	0.10
941108	0700	0.87	0.152	0.093	6.59	10.72	4.0	6.0	1.9	36.6	36.1	21.7	0.12
941108	1000	0.78	0.083	0.083	11.98	11.98	2.0	6.0	-8.3	32.4	33.5	24.6	0.19
941108	1300	0.71	0.132	0.093	7.56	10.72	-12.0	-12.0	-9.6	30.0	31.8	21.2	0.21
941108	1600	0.62	0.093	0.093	10.72	10.72	-4.0	-6.0	-14.3	28.5	27.6	18.2	0.13
941108	1900	0.52	0.093	0.093	10.72	10.72	-16.0	-10.0	-22.8	32.4	25.7	20.5	0.22
941108	2200	0.45	0.093	0.093	10.72	10.72	-22.0	-48.0	-30.2	37.0	20.0	21.4	0.28
941109	0100	0.38	0.093	0.093	10.72	10.72	-12.0	-14.0	-26.5	36.2	19.0	18.1	0.28
941109	0400	0.32	0.093	0.093	10.72	10.72	-16.0	-14.0	-28.1	33.2	18.5	17.5	0.29
941109	0700	0.29	0.103	0.103	9.71	9.71	-30.0	-38.0	-30.3	34.5	19.7	23.0	0.36

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
941109	1000	0.26	0.103	0.103	9.71	9.71	-18.0	-42.0	-28.9	34.6	17.2	20.6	0.30
941109	1300	0.24	0.152	0.064	6.59	15.63	-42.0	-42.0	-31.4	36.5	27.8	24.6	0.31
941109	1600	0.25	0.103	0.064	9.71	15.63	-28.0	-36.0	-30.8	36.5	23.7	34.4	0.30
941109	1900	0.26	0.064	0.064	15.63	15.63	-12.0	-42.0	-34.6	34.8	22.3	23.9	0.38
941109	2200	0.26	0.181	0.074	5.52	13.56	-52.0	-52.0	-37.2	37.3	19.9	30.8	0.31
941110	0100	0.25	0.152	0.064	6.59	15.63	-46.0	-46.0	-43.3	39.9	19.2	29.1	0.30
941110	0400	0.25	0.064	0.064	15.63	15.63	-10.0	-62.0	-39.5	45.8	18.1	25.4	0.36
941110	0700	0.47	0.298	0.298	3.35	3.35	62.0	62.0	42.1	23.0	13.9	5.3	0.38
941110	1000	1.71	0.191	0.181	5.24	5.52	48.0	48.0	45.6	18.0	15.1	13.1	0.23
941110	1300	2.50	0.132	0.142	7.56	7.04	24.0	22.0	35.4	20.7	18.9	14.0	0.22
941110	1600	2.10	0.162	0.162	6.19	6.19	28.0	22.0	32.0	23.2	20.2	14.3	0.19
941110	1900	1.70	0.142	0.152	7.04	6.59	20.0	20.0	28.4	24.7	20.7	14.4	0.17
941110	2200	1.71	0.152	0.162	6.59	6.19	18.0	18.0	28.9	25.2	20.3	18.0	0.17
941111	0100	1.88	0.152	0.162	6.59	6.19	24.0	24.0	31.4	26.0	20.8	16.6	0.18
941111	0400	1.79	0.162	0.171	6.19	5.83	24.0	18.0	29.5	27.1	20.4	17.9	0.16
941111	0700	1.74	0.142	0.162	7.04	6.19	16.0	16.0	26.3	25.9	21.8	19.8	0.15
941111	1000	1.70	0.132	0.132	7.56	7.56	14.0	16.0	26.7	28.1	21.3	14.1	0.17
941111	1300	1.63	0.132	0.132	7.56	7.56	16.0	16.0	26.6	29.2	21.6	12.4	0.18
941111	1600	1.35	0.113	0.123	8.87	8.16	0.0	14.0	23.6	31.1	23.7	20.2	0.14
941111	1900	1.16	0.123	0.123	8.16	8.16	6.0	8.0	21.2	30.8	24.4	16.0	0.10
941111	2200	1.08	0.132	0.132	7.56	7.56	4.0	22.0	19.5	33.2	26.5	19.5	0.10
941112	0100	0.98	0.132	0.132	7.56	7.56	12.0	12.0	25.4	35.2	28.9	20.2	0.12
941112	0400	0.91	0.132	0.132	7.56	7.56	12.0	22.0	22.5	35.4	27.7	18.7	0.11
941112	0700	0.94	0.113	0.123	8.87	8.16	2.0	24.0	24.5	36.9	27.6	22.4	0.11
941112	1000	0.96	0.162	0.191	6.19	5.24	16.0	18.0	22.0	33.2	26.0	24.9	0.10
941112	1300	0.88	0.123	0.123	8.16	8.16	4.0	6.0	17.7	34.6	27.2	16.8	0.11
941112	1600	0.80	0.123	0.123	8.16	8.16	4.0	4.0	17.1	34.8	28.0	17.7	0.13
941112	1900	0.77	0.132	0.132	7.56	7.56	0.0	4.0	14.7	38.1	31.1	22.1	0.11
941112	2200	0.74	0.142	0.113	7.04	8.87	-2.0	0.0	11.5	36.2	31.9	24.2	0.11
941113	0100	0.68	0.113	0.113	8.87	8.87	0.0	2.0	11.5	35.7	33.6	25.6	0.14
941113	0400	0.61	0.103	0.113	9.71	8.87	-18.0	-10.0	3.1	38.8	37.4	33.4	0.20
941113	0700	0.58	0.113	0.113	8.87	8.87	0.0	-6.0	10.6	39.0	38.6	30.2	0.16
941113	1000	0.55	0.113	0.113	8.87	8.87	-6.0	-4.0	-0.9	33.9	35.8	27.0	0.16
941113	1300	0.53	0.132	0.113	7.56	8.87	2.0	2.0	2.5	33.3	34.8	31.4	0.21
941113	1600	0.51	0.113	0.113	8.87	8.87	-4.0	-6.0	-8.6	31.7	33.5	28.7	0.27
941113	1900	0.45	0.132	0.113	7.56	8.87	-38.0	-4.0	-17.8	34.2	35.4	32.5	0.29
941113	2200	0.46	0.113	0.113	8.87	8.87	-8.0	-8.0	-23.6	34.1	32.9	28.4	0.24
941114	0100	0.47	0.123	0.123	8.16	8.16	-6.0	-6.0	-16.3	34.6	35.4	29.0	0.29
941114	0400	0.44	0.123	0.123	8.16	8.16	-38.0	-4.0	-18.9	36.1	34.6	38.5	0.31
941114	0700	0.45	0.054	0.054	18.45	18.45	8.0	-8.0	-18.5	35.5	30.9	27.0	0.42
941114	1000	0.50	0.054	0.054	18.45	18.45	-8.0	-8.0	-16.0	34.3	28.6	23.4	0.38
941114	1300	0.54	0.054	0.054	18.45	18.45	0.0	0.0	-13.6	32.5	26.2	21.5	0.33
941114	1600	0.57	0.054	0.054	18.45	18.45	-2.0	-2.0	-15.0	31.6	25.3	19.4	0.39
941114	1900	0.67	0.064	0.064	15.63	15.63	-6.0	-2.0	-10.6	32.0	30.4	18.1	0.27
941114	2200	0.83	0.162	0.162	6.19	6.19	-6.0	-8.0	-8.2	31.8	30.8	19.1	0.21
941115	0100	0.86	0.064	0.064	15.63	15.63	2.0	-10.0	-10.5	35.5	34.2	20.8	0.24
941115	0400	0.78	0.064	0.064	15.63	15.63	-8.0	-10.0	-18.6	35.2	34.3	21.8	0.25
941115	0700	0.69	0.064	0.064	15.63	15.63	-8.0	-16.0	-24.1	38.4	35.3	27.0	0.30
941115	1000	0.66	0.064	0.064	15.63	15.63	2.0	-34.0	-20.5	35.0	32.3	23.2	0.28
941115	1300	0.66	0.103	0.064	9.71	15.63	-30.0	-30.0	-23.5	34.1	29.2	20.9	0.26
941115	1600	0.68	0.113	0.113	8.87	8.87	-36.0	-36.0	-27.0	32.8	27.7	15.2	0.29
941115	1900	0.67	0.103	0.113	9.71	8.87	-36.0	-36.0	-24.9	33.0	28.5	18.0	9.99
941115	2200	0.66	0.113	0.113	8.87	8.87	-26.0	-36.0	-25.8	29.9	26.5	17.1	0.23

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
941116	0100	0.66	0.103	0.074	9.71	13.56	-24.0	-34.0	-26.1	30.4	26.2	23.2	0.26
941116	0400	0.68	0.113	0.113	8.87	8.87	-22.0	-20.0	-25.5	31.1	26.0	16.1	0.30
941116	0700	0.66	0.074	0.074	13.56	13.56	2.0	-18.0	-20.7	35.7	29.3	21.6	0.32
941116	1000	0.82	0.308	0.103	3.25	9.71	54.0	54.0	12.1	61.0	25.9	28.8	0.24
941116	1300	1.35	0.171	0.162	5.83	6.19	42.0	46.0	32.4	38.4	21.2	21.3	0.17
941116	1600	2.22	0.142	0.142	7.04	7.04	20.0	38.0	31.1	24.7	23.6	19.8	0.20
941116	1900	2.49	0.132	0.132	7.56	7.56	26.0	24.0	32.0	21.2	21.4	12.3	0.19
941116	2200	2.33	0.123	0.123	8.16	8.16	14.0	16.0	26.7	25.9	23.0	18.1	0.16
941117	0100	2.71	0.103	0.113	9.71	8.87	10.0	14.0	21.8	27.1	25.3	21.6	0.16
941117	0400	3.28	0.103	0.103	9.71	9.71	12.0	12.0	20.0	26.9	25.7	16.4	0.18
941117	0700	3.28	0.093	0.093	10.72	10.72	4.0	10.0	17.4	25.9	26.3	16.1	0.17
941117	1000	3.45	0.083	0.083	11.98	11.98	4.0	6.0	10.2	24.4	27.0	17.4	0.15
941117	1300	3.25	0.093	0.083	10.72	11.98	10.0	8.0	7.5	23.5	27.0	16.1	0.13
941117	1600	3.86	0.083	0.093	11.98	10.72	10.0	2.0	0.5	28.8	29.2	33.3	0.15
941117	1900	4.16	0.074	0.074	13.56	13.56	-8.0	-8.0	-6.5	26.6	26.9	21.1	0.21
941117	2200	4.26	0.074	0.074	13.56	13.56	-14.0	-12.0	-8.9	23.6	24.0	20.6	0.23
941118	0100	4.32	0.074	0.074	13.56	13.56	-16.0	-12.0	-10.4	24.7	25.9	22.6	0.27
941118	0400	5.14	0.074	0.074	13.56	13.56	-10.0	-10.0	-11.6	22.0	23.3	25.5	0.35
941118	0700	5.13	0.074	0.074	13.56	13.56	-6.0	-10.0	-12.7	23.4	25.1	25.9	0.35
941118	1000	4.58	0.074	0.064	13.56	15.63	-12.0	-10.0	-12.9	24.1	25.5	30.0	0.34
941118	1300	4.17	0.074	0.074	13.56	13.56	-12.0	-12.0	-9.8	26.2	27.2	27.9	0.30
941118	1600	4.18	0.074	0.074	13.56	13.56	-14.0	-10.0	-10.0	24.9	25.2	26.4	0.26
941118	1900	3.61	0.074	0.074	13.56	13.56	-26.0	-12.0	-15.2	27.0	27.2	28.2	0.20
941118	2200	3.10	0.074	0.083	13.56	11.98	-18.0	-18.0	-11.2	28.6	29.2	27.1	0.13
941119	0100	2.89	0.083	0.083	11.98	11.98	-20.0	-18.0	-9.8	32.9	31.1	25.7	0.10
941119	0400	2.81	0.083	0.083	11.98	11.98	-2.0	-18.0	-6.2	33.2	30.4	24.5	0.12
941119	0700	2.72	0.083	0.083	11.98	11.98	-18.0	-20.0	3.4	41.5	28.6	27.3	0.14
941119	1000	2.70	0.083	0.083	11.98	11.98	0.0	18.0	13.1	41.6	24.5	26.7	0.12
941119	1300	2.46	0.093	0.083	10.72	11.98	-26.0	4.0	11.1	40.2	24.7	29.7	0.12
941119	1600	2.15	0.093	0.093	10.72	10.72	-28.0	12.0	3.8	36.5	26.2	25.9	0.12
941119	1900	2.01	0.093	0.093	10.72	10.72	-2.0	8.0	12.9	40.9	25.4	28.1	0.15
941119	2200	1.84	0.093	0.093	10.72	10.72	-10.0	-6.0	8.7	40.5	24.9	23.1	0.14
941120	0100	1.75	0.093	0.103	10.72	9.71	-10.0	-10.0	8.9	39.8	24.9	20.2	0.10
941120	0400	1.87	0.162	0.103	6.19	9.71	14.0	14.0	9.9	40.0	24.4	20.3	0.10
941120	0700	1.86	0.152	0.103	6.59	9.71	12.0	12.0	13.9	38.9	26.8	24.2	0.10
941120	1000	1.81	0.142	0.152	7.04	6.59	16.0	16.0	14.4	36.3	28.2	22.7	0.09
941120	1300	1.78	0.142	0.152	7.04	6.59	8.0	10.0	9.8	34.8	26.5	18.9	0.09
941120	1600	1.73	0.113	0.113	8.87	8.87	-6.0	6.0	14.2	37.5	31.1	23.8	0.09
941120	1900	1.64	0.132	0.113	7.56	8.87	14.0	12.0	12.9	40.7	37.6	31.4	0.09
941120	2200	1.59	0.113	0.113	8.87	8.87	-8.0	-18.0	14.6	43.4	43.8	31.0	0.10
941121	0100	1.63	0.123	0.123	8.16	8.16	-30.0	-30.0	-9.1	37.7	39.0	24.8	0.09
941121	0400	1.67	0.123	0.123	8.16	8.16	-36.0	-10.0	-22.9	34.5	37.6	25.9	0.11
941121	0700	1.77	0.123	0.123	8.16	8.16	-26.0	-24.0	-22.3	37.4	41.4	27.3	0.11
941121	1000	1.75	0.113	0.123	8.87	8.16	-10.0	-22.0	-33.5	35.4	38.4	29.4	0.11
941121	1300	1.86	0.113	0.113	8.87	8.87	-30.0	-26.0	-36.7	28.9	28.7	22.7	0.12
941121	1600	1.80	0.113	0.123	8.87	8.16	-34.0	-34.0	-31.8	25.7	25.7	22.8	0.12
941121	1900	1.76	0.113	0.113	8.87	8.87	-34.0	-34.0	-32.1	26.6	26.7	25.0	0.11
941121	2200	1.47	0.113	0.113	8.87	8.87	-34.0	-34.0	-34.5	25.2	26.1	21.9	0.13
941122	0100	1.29	0.123	0.113	8.16	8.87	-34.0	-32.0	-29.7	24.8	24.6	23.6	0.13
941122	0400	1.26	0.113	0.113	8.87	8.87	-12.0	-16.0	-22.6	25.1	24.7	23.8	0.13
941122	0700	1.03	0.113	0.113	8.87	8.87	-14.0	-14.0	-20.8	27.5	27.8	22.1	0.19
941122	1000	0.82	0.113	0.113	8.87	8.87	-14.0	-14.0	-10.2	31.8	28.0	20.5	0.17
941122	1300	0.85	0.113	0.113	8.87	8.87	-14.0	-26.0	-1.6	40.8	25.8	20.7	0.16
941122	1600	0.97	0.123	0.123	8.16	8.16	-34.0	-34.0	0.3	51.1	23.1	22.4	0.11

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
941122	1900	0.91	0.123	0.123	8.16	8.16	-34.0	-32.0	-0.2	49.4	24.8	22.0	0.14
941122	2200	0.98	0.113	0.113	8.87	8.87	-28.0	38.0	11.2	54.7	19.8	23.1	0.16
941123	0100	1.57	0.181	0.171	5.52	5.83	46.0	46.0	35.5	24.6	18.8	14.4	0.17
941123	0400	1.52	0.152	0.152	6.59	6.59	22.0	30.0	32.4	27.9	19.4	15.0	0.15
941123	0700	1.45	0.142	0.142	7.04	7.04	20.0	30.0	32.1	26.4	21.5	17.7	0.12
941123	1000	1.17	0.142	0.142	7.04	7.04	24.0	26.0	31.4	24.3	21.9	13.0	0.11
941123	1300	0.84	0.162	0.152	6.19	6.59	30.0	28.0	27.2	29.4	23.0	14.7	0.10
941123	1600	0.63	0.181	0.132	5.52	7.56	34.0	30.0	23.8	35.9	22.6	32.0	0.10
941123	1900	0.42	0.171	0.142	5.83	7.04	34.0	34.0	17.1	45.8	23.9	32.6	0.16
941123	2200	0.38	0.289	0.289	3.47	3.47	90.0	90.0	51.7	62.2	18.1	17.1	0.21
941124	0100	0.69	0.162	0.152	6.19	6.59	40.0	46.0	49.1	20.9	13.2	8.2	0.14
941124	0400	1.69	0.142	0.142	7.04	7.04	30.0	38.0	37.8	18.8	13.2	8.7	0.13
941124	0700	1.91	0.132	0.132	7.56	7.56	30.0	32.0	36.5	24.1	15.1	12.6	0.16
941124	1000	1.64	0.152	0.142	6.59	7.04	36.0	34.0	36.0	24.5	16.6	14.4	0.17
941124	1300	1.30	0.113	0.113	8.87	8.87	16.0	20.0	30.9	23.4	17.5	14.7	0.13
941124	1600	0.97	0.123	0.113	8.16	8.87	14.0	16.0	26.2	23.9	17.7	14.8	0.10
941124	1900	0.77	0.132	0.132	7.56	7.56	22.0	28.0	25.6	24.2	18.3	15.1	0.11
941124	2200	0.62	0.132	0.132	7.56	7.56	18.0	24.0	21.9	29.5	20.5	13.5	0.17
941125	0100	0.46	0.083	0.123	11.98	8.16	-6.0	-6.0	8.6	36.5	25.1	23.3	0.21
941125	0400	0.40	0.093	0.093	10.72	10.72	-6.0	-10.0	-2.8	28.7	25.2	20.4	0.18
941125	0700	0.33	0.103	0.103	9.71	9.71	-24.0	-20.0	-18.2	21.2	21.8	19.3	0.31
941125	1000	0.31	0.113	0.113	8.87	8.87	-14.0	-14.0	-14.9	17.7	16.5	12.3	0.22
941125	1300	0.31	0.113	0.113	8.87	8.87	-12.0	-12.0	-13.2	19.8	18.1	11.3	0.26
941125	1600	0.25	0.093	0.093	10.72	10.72	-2.0	-8.0	-18.7	28.5	21.9	21.5	0.32
941125	1900	0.25	0.093	0.093	10.72	10.72	-10.0	-10.0	-25.4	40.2	18.7	22.0	0.26
941125	2200	0.21	0.103	0.103	9.71	9.71	-6.0	-42.0	-27.8	40.4	22.2	18.8	0.20
941126	0100	0.21	0.093	0.093	10.72	10.72	-2.0	-44.0	-15.5	45.7	42.8	21.4	0.17
941126	0400	0.19	0.093	0.093	10.72	10.72	-12.0	-28.0	-21.5	34.0	31.8	22.6	0.24
941126	0700	0.71	0.250	0.250	4.01	4.01	46.0	50.0	48.5	24.2	23.2	19.4	0.14
941126	1000	1.20	0.191	0.191	5.24	5.24	52.0	50.0	48.4	20.6	21.2	16.9	0.13
941126	1300	1.09	0.171	0.181	5.83	5.52	48.0	48.0	50.4	21.9	21.5	14.8	0.16
941126	1600	0.97	0.181	0.181	5.52	5.52	50.0	48.0	47.0	20.9	20.0	16.8	0.16
941126	1900	0.85	0.191	0.191	5.24	5.24	28.0	32.0	39.9	25.1	24.0	19.6	0.13
941126	2200	0.87	0.230	0.230	4.35	4.35	38.0	28.0	32.6	32.6	30.8	24.9	0.15
941127	0100	1.00	0.230	0.230	4.35	4.35	32.0	30.0	27.8	34.0	33.3	31.9	0.14
941127	0400	1.13	0.201	0.201	4.98	4.98	46.0	40.0	34.8	34.0	33.2	31.7	0.11
941127	0700	1.19	0.181	0.181	5.52	5.52	22.0	24.0	22.8	32.1	31.3	25.9	0.08
941127	1000	1.14	0.181	0.181	5.52	5.52	22.0	34.0	25.9	36.1	31.4	23.1	0.08
941127	1300	1.33	0.181	0.171	5.52	5.83	26.0	28.0	13.9	43.9	44.4	41.3	0.08
941127	1600	1.77	0.142	0.152	7.04	6.59	0.0	2.0	1.0	35.7	39.6	33.5	0.08
941127	1900	1.73	0.132	0.132	7.56	7.56	-8.0	0.0	1.1	33.9	37.4	24.7	0.08
941127	2200	1.80	0.123	0.123	8.16	8.16	-28.0	-24.0	-20.4	30.8	34.6	26.6	0.10
941128	0100	1.72	0.123	0.123	8.16	8.16	-24.0	-22.0	-26.4	30.6	33.3	26.3	0.12
941128	0400	1.44	0.123	0.123	8.16	8.16	-26.0	-28.0	-30.2	28.9	29.8	20.6	0.11
941128	0700	1.41	0.123	0.123	8.16	8.16	-28.0	-26.0	-34.0	24.8	25.4	23.1	0.11
941128	1000	1.28	0.123	0.123	8.16	8.16	-36.0	-34.0	-37.7	25.6	25.5	25.3	0.12
941128	1300	1.25	0.113	0.113	8.87	8.87	-34.0	-38.0	-36.6	23.8	22.3	21.9	0.14
941128	1600	1.09	0.113	0.113	8.87	8.87	-24.0	-38.0	-38.1	22.1	20.4	15.6	0.14
941128	1900	0.80	0.123	0.123	8.16	8.16	-34.0	-36.0	-38.2	21.2	16.1	15.5	0.13
941128	2200	0.70	0.132	0.123	7.56	8.16	-38.0	-38.0	-37.0	22.4	16.7	24.0	0.13
941129	0100	0.66	0.142	0.132	7.04	7.56	-38.0	-40.0	-38.9	23.7	17.8	18.0	0.17
941129	0400	0.62	0.132	0.123	7.56	8.16	-40.0	-40.0	-38.7	27.6	21.7	22.1	0.18
941129	0700	0.55	0.123	0.123	8.16	8.16	-34.0	-36.0	-35.6	26.5	24.3	19.0	0.16

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
941129	1000	0.54	0.123	0.123	8.16	8.16	-36.0	-36.0	-34.4	26.4	25.0	23.4	0.13
941129	1300	0.63	0.132	0.123	7.56	8.16	-38.0	-38.0	-30.5	27.7	23.1	21.7	0.18
941129	1600	0.60	0.132	0.132	7.56	7.56	-38.0	-38.0	-32.5	26.9	24.9	23.6	0.19
941129	1900	0.55	0.142	0.123	7.04	8.16	-38.0	-38.0	-31.2	27.8	25.6	22.8	0.16
941129	2200	0.58	0.132	0.123	7.56	8.16	-32.0	-32.0	-28.0	26.0	25.0	18.1	0.12
941130	0100	0.69	0.132	0.132	7.56	7.56	-32.0	-34.0	1.4	62.4	29.5	15.9	0.16
941130	0400	0.77	0.132	0.132	7.56	7.56	-16.0	90.0	21.0	82.4	29.7	19.3	0.20
941130	0700	0.86	0.220	0.220	4.54	4.54	58.0	58.0	31.3	63.7	27.2	25.1	0.15
941130	1000	0.79	0.220	0.132	4.54	7.56	30.0	28.0	14.8	52.4	23.5	19.3	0.11
941130	1300	0.89	0.181	0.191	5.52	5.24	2.0	2.0	13.1	37.7	24.6	21.8	0.12
941130	1600	0.95	0.162	0.162	6.19	6.19	4.0	4.0	8.3	26.9	24.3	10.0	0.12
941130	1900	0.88	0.162	0.162	6.19	6.19	0.0	0.0	7.2	25.6	25.0	11.7	0.10
941130	2200	0.89	0.152	0.152	6.59	6.59	4.0	2.0	13.6	29.8	24.3	11.2	0.10
941201	0100	0.95	0.113	0.123	8.87	8.16	2.0	0.0	8.0	30.6	26.4	21.6	0.11
941201	0400	0.97	0.123	0.123	8.16	8.16	0.0	0.0	6.8	30.8	28.8	23.0	0.12
941201	0700	0.95	0.123	0.123	8.16	8.16	-6.0	-2.0	8.2	33.6	26.7	22.9	0.11
941201	1000	0.94	0.123	0.123	8.16	8.16	-4.0	-4.0	15.9	45.4	24.5	20.9	0.11
941201	1300	1.04	0.132	0.123	7.56	8.16	-12.0	-10.0	15.9	47.5	24.7	25.2	0.10
941201	1600	1.04	0.171	0.191	5.83	5.24	34.0	34.0	18.6	40.5	27.4	18.4	0.11
941201	1900	0.94	0.162	0.152	6.19	6.59	32.0	30.0	16.3	41.3	24.4	20.0	0.09
941201	2200	0.82	0.162	0.162	6.19	6.19	18.0	18.0	9.2	39.4	24.6	13.6	0.08
941202	0100	0.86	0.123	0.113	8.16	8.87	-8.0	-10.0	3.5	39.7	26.2	22.2	0.09
941202	0400	0.82	0.123	0.113	8.16	8.87	-8.0	-8.0	4.2	43.1	28.0	26.2	0.12
941202	0700	0.74	0.103	0.103	9.71	9.71	-36.0	-12.0	-0.2	42.2	28.1	21.9	0.13
941202	1000	0.71	0.103	0.103	9.71	9.71	-36.0	-8.0	-6.1	31.3	26.2	18.3	0.11
941202	1300	0.69	0.103	0.103	9.71	9.71	-20.0	-14.0	-9.8	29.3	26.1	18.4	0.10
941202	1600	0.66	0.103	0.103	9.71	9.71	-34.0	-34.0	-14.3	29.5	27.6	19.1	0.17
941202	1900	0.57	0.113	0.103	8.87	9.71	-36.0	-36.0	-21.5	29.3	29.1	23.8	0.22
941202	2200	0.53	0.103	0.103	9.71	9.71	-36.0	-36.0	-30.1	27.7	27.0	21.5	0.16
941203	0100	0.54	0.113	0.113	8.87	8.87	-32.0	-32.0	-26.2	24.2	24.3	21.2	0.15
941203	0400	0.53	0.113	0.113	8.87	8.87	-36.0	-36.0	-31.0	22.2	23.4	16.4	0.23
941203	0700	0.51	0.103	0.103	9.71	9.71	-16.0	-34.0	-30.7	21.5	20.8	18.8	0.27
941203	1000	0.49	0.103	0.103	9.71	9.71	-32.0	-34.0	-34.9	20.4	18.6	17.4	0.27
941203	1300	0.48	0.103	0.103	9.71	9.71	-32.0	-32.0	-32.2	23.1	19.5	18.5	0.16
941203	1600	0.51	0.113	0.103	8.87	9.71	-32.0	-32.0	-35.9	21.7	18.3	19.1	0.24
941203	1900	0.51	0.103	0.103	9.71	9.71	-32.0	-34.0	-36.0	22.4	20.7	18.8	0.35
941203	2200	0.51	0.103	0.103	9.71	9.71	-20.0	-32.0	-31.9	19.1	19.0	15.6	0.28
941204	0100	0.52	0.103	0.103	9.71	9.71	-28.0	-30.0	-27.6	19.9	19.7	18.2	0.19
941204	0400	0.56	0.103	0.103	9.71	9.71	-32.0	-32.0	-33.1	20.4	20.0	16.6	0.20
941204	0700	0.57	0.103	0.103	9.71	9.71	-18.0	-36.0	-32.8	24.9	23.6	22.2	0.22
941204	1000	0.53	0.103	0.103	9.71	9.71	-34.0	-34.0	-35.5	24.6	25.1	22.4	0.31
941204	1600	0.49	0.103	0.103	9.71	9.71	-30.0	-32.0	-32.0	27.0	25.6	23.5	0.23
941204	1900	0.49	0.103	0.103	9.71	9.71	-16.0	-36.0	-25.5	28.0	25.6	23.8	0.23
941204	2200	0.50	0.113	0.103	8.87	9.71	-24.0	-32.0	-36.3	28.7	25.6	27.6	0.28
941205	0100	0.54	0.191	0.103	5.24	9.71	-52.0	-52.0	-35.4	31.6	22.3	21.5	0.24
941205	0400	0.75	0.162	0.162	6.19	6.19	-44.0	-44.0	-40.9	22.0	21.1	15.3	0.20
941205	0700	0.92	0.162	0.162	6.19	6.19	-48.0	-44.0	-43.5	22.8	21.3	17.5	0.23
941205	1000	0.90	0.142	0.142	7.04	7.04	-46.0	-44.0	-44.0	25.7	23.7	23.7	0.22
941205	1300	0.78	0.132	0.132	7.56	7.56	-40.0	-42.0	-38.8	24.6	22.4	21.6	0.15
941205	1600	0.73	0.132	0.142	7.56	7.04	-40.0	-42.0	-38.0	26.9	24.0	24.5	0.17
941205	1900	0.70	0.142	0.132	7.04	7.56	-42.0	-42.0	-38.8	28.2	24.0	21.7	0.22
941205	2200	0.64	0.132	0.132	7.56	7.56	-40.0	-42.0	-42.0	28.5	25.0	27.7	0.22
941206	0100	0.59	0.142	0.142	7.04	7.04	-42.0	-42.0	-39.8	28.7	23.9	24.8	0.21

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
941206	0400	0.57	0.142	0.142	7.04	7.04	-40.0	-40.0	-36.2	30.1	24.8	25.0	0.22
941206	0700	0.58	0.152	0.132	6.59	7.56	-42.0	-40.0	-40.2	29.3	24.4	23.7	0.23
941206	1000	0.54	0.123	0.123	8.16	8.16	-38.0	-40.0	-36.8	33.4	27.6	20.8	0.26
941206	1300	0.55	0.142	0.132	7.04	7.56	-36.0	-36.0	-30.7	29.9	28.3	28.7	0.26
941206	1600	0.58	0.132	0.142	7.56	7.04	-40.0	-38.0	-25.0	32.0	29.1	28.1	0.21
941206	1900	0.60	0.142	0.142	7.04	7.04	-42.0	-42.0	-21.1	37.4	28.7	30.9	0.22
941206	2200	0.55	0.132	0.132	7.56	7.56	-38.0	-38.0	-26.7	36.9	28.9	20.4	0.25
941207	0100	0.51	0.142	0.103	7.04	9.71	-40.0	-40.0	-21.4	38.2	31.6	32.8	0.24
941207	0400	0.49	0.142	0.113	7.04	8.87	-36.0	-36.0	-26.7	34.6	31.2	32.6	0.23
941207	0700	0.51	0.142	0.123	7.04	8.16	-38.0	-38.0	-28.7	32.3	29.1	32.0	0.22
941207	1000	0.49	0.123	0.113	8.16	8.87	-38.0	-38.0	-29.3	31.1	25.8	32.2	0.25
941207	1300	0.46	0.123	0.113	8.16	8.87	-38.0	-38.0	-32.7	29.9	26.1	29.5	0.36
941207	1600	0.42	0.113	0.113	8.87	8.87	-36.0	-36.0	-33.0	28.0	22.7	26.5	0.26
941207	1900	0.40	0.123	0.123	8.16	8.16	-36.0	-36.0	-33.5	29.0	23.9	25.8	0.33
941207	2200	0.37	0.113	0.113	8.87	8.87	-36.0	-38.0	-34.9	27.3	22.9	22.1	0.27
941208	0100	0.55	0.269	0.279	3.72	3.59	66.0	64.0	29.1	82.5	15.4	12.1	0.39
941208	0400	1.84	0.171	0.171	5.83	5.83	40.0	40.0	42.1	19.2	17.8	12.3	0.19
941208	0700	2.56	0.152	0.142	6.59	7.04	38.0	38.0	34.9	19.7	18.2	14.3	0.20
941208	1000	2.25	0.123	0.142	8.16	7.04	18.0	28.0	36.4	25.7	20.3	14.7	0.21
941208	1300	1.78	0.152	0.152	6.59	6.59	30.0	32.0	34.1	26.4	20.9	14.3	0.17
941208	1600	1.37	0.152	0.113	6.59	8.87	20.0	20.0	29.2	26.3	22.2	23.6	0.14
941208	1900	1.19	0.123	0.123	8.16	8.16	16.0	18.0	25.5	25.8	22.3	14.7	0.10
941208	2200	1.01	0.132	0.132	7.56	7.56	14.0	18.0	23.4	28.3	25.2	21.7	0.13
941209	0100	0.91	0.113	0.113	8.87	8.87	8.0	20.0	21.1	30.3	26.7	20.4	0.12
941209	0400	0.86	0.152	0.113	6.59	8.87	14.0	12.0	16.8	34.7	30.7	32.6	0.11
941209	0700	0.85	0.132	0.132	7.56	7.56	10.0	10.0	13.3	35.0	30.6	17.0	0.10
941209	1000	0.83	0.142	0.103	7.04	9.71	12.0	12.0	10.0	35.7	31.9	31.7	0.13
941209	1300	0.84	0.142	0.113	7.04	8.87	12.0	12.0	11.7	33.5	28.6	25.6	0.15
941209	1600	0.88	0.103	0.103	9.71	9.71	-8.0	10.0	7.1	31.8	29.5	26.0	0.12
941209	1900	0.87	0.083	0.113	11.98	8.87	-8.0	-6.0	6.6	28.6	29.6	23.8	0.14
941209	2200	0.83	0.093	0.113	10.72	8.87	-6.0	-6.0	1.2	31.2	33.1	31.4	0.17
941210	0100	0.76	0.093	0.093	10.72	10.72	-10.0	-10.0	-3.9	31.9	31.4	15.1	0.19
941210	0400	0.67	0.093	0.093	10.72	10.72	0.0	-4.0	-18.1	36.0	32.0	26.7	0.21
941210	0700	0.68	0.093	0.103	10.72	9.71	-10.0	-8.0	-22.1	36.0	28.2	27.3	0.16
941210	1000	0.72	0.093	0.093	10.72	10.72	-2.0	-4.0	-24.2	37.3	25.7	16.4	0.18
941210	1300	0.78	0.181	0.103	5.52	9.71	-56.0	-54.0	-35.8	41.3	26.0	30.4	0.18
941210	1600	0.76	0.171	0.162	5.83	6.19	-56.0	-36.0	-47.3	39.3	28.5	26.0	0.20
941210	1900	0.75	0.152	0.162	6.59	6.19	-46.0	-46.0	-32.0	42.9	39.2	15.6	0.20
941210	2200	0.83	0.162	0.152	6.19	6.59	-48.0	-40.0	-41.8	43.6	40.4	16.6	0.18
941211	0100	0.84	0.152	0.152	6.59	6.59	-44.0	-42.0	-42.6	39.9	40.3	27.4	0.25
941211	0400	0.79	0.142	0.103	7.04	9.71	-42.0	-40.0	-36.5	37.3	33.3	22.1	0.28
941211	0700	1.00	0.269	0.132	3.72	7.56	60.0	60.0	7.7	86.0	31.6	19.2	0.25
941211	1000	2.02	0.171	0.171	5.83	5.83	44.0	44.0	37.9	17.9	17.0	8.2	0.22
941211	1300	2.10	0.152	0.152	6.59	6.59	36.0	36.0	36.5	20.6	15.9	10.2	0.22
941211	1600	1.98	0.152	0.142	6.59	7.04	36.0	36.0	36.1	22.6	17.1	14.1	0.22
941211	1900	1.87	0.142	0.142	7.04	7.04	22.0	24.0	31.3	21.7	15.3	9.2	0.20
941211	2200	2.09	0.142	0.142	7.04	7.04	22.0	22.0	31.3	23.0	18.5	13.5	0.20
941212	0100	2.03	0.142	0.142	7.04	7.04	24.0	28.0	29.7	26.7	21.1	13.3	0.20
941212	0400	1.90	0.142	0.142	7.04	7.04	26.0	30.0	29.5	27.8	22.0	13.1	0.18
941212	0700	1.71	0.142	0.142	7.04	7.04	20.0	20.0	24.8	29.2	22.3	13.6	0.15
941212	1000	1.54	0.152	0.132	6.59	7.56	22.0	22.0	20.7	31.8	26.1	22.7	0.13
941212	1300	1.39	0.142	0.142	7.04	7.04	18.0	20.0	23.2	36.0	27.2	18.3	0.14
941212	1600	1.24	0.132	0.132	7.56	7.56	16.0	18.0	22.3	36.4	28.3	21.9	0.14
941212	1900	1.23	0.142	0.132	7.04	7.56	26.0	24.0	26.1	36.2	25.4	29.3	0.15

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
941212	2200	1.28	0.210	0.142	4.75	7.04	48.0	24.0	25.1	43.3	29.4	37.4	0.14
941213	0100	1.36	0.162	0.162	6.19	6.19	24.0	22.0	25.1	39.6	31.8	28.4	0.12
941213	0400	1.48	0.162	0.162	6.19	6.19	22.0	14.0	23.5	37.3	32.6	27.2	0.11
941213	0700	1.52	0.171	0.171	5.83	5.83	16.0	10.0	17.8	33.9	30.6	19.6	0.09
941213	1000	1.53	0.152	0.152	6.59	6.59	12.0	8.0	16.7	30.3	28.6	21.9	0.09
941213	1300	1.58	0.152	0.152	6.59	6.59	10.0	8.0	25.0	39.6	29.1	17.1	0.14
941213	1600	1.66	0.171	0.162	5.83	6.19	24.0	14.0	29.0	34.5	24.8	19.3	0.15
941213	1900	1.62	0.152	0.162	6.59	6.19	14.0	14.0	25.7	35.0	25.1	21.9	0.16
941213	2200	1.73	0.152	0.152	6.59	6.59	14.0	40.0	28.8	37.4	27.0	23.5	0.15
941214	0100	1.82	0.123	0.152	8.16	6.59	4.0	2.0	21.9	39.9	33.3	37.5	0.11
941214	0400	1.85	0.113	0.113	8.87	8.87	-2.0	4.0	8.4	34.1	32.7	25.5	0.11
941214	0700	2.09	0.113	0.113	8.87	8.87	-10.0	4.0	8.9	32.4	29.7	23.5	0.10
941214	1000	2.30	0.123	0.123	8.16	8.16	12.0	10.0	13.5	29.4	28.4	22.7	0.09
941214	1300	2.58	0.103	0.113	9.71	8.87	-2.0	14.0	16.1	29.1	27.9	24.7	0.12
941214	1600	3.16	0.103	0.103	9.71	9.71	10.0	12.0	19.4	28.8	26.6	21.5	0.16
941214	1900	3.40	0.113	0.103	8.87	9.71	14.0	14.0	18.9	25.1	25.1	20.3	0.16
941214	2200	3.34	0.093	0.093	10.72	10.72	10.0	12.0	13.9	26.8	26.9	22.2	0.15
941215	0100	3.29	0.093	0.093	10.72	10.72	10.0	10.0	19.8	28.0	26.9	20.2	0.16
941215	0400	2.96	0.093	0.093	10.72	10.72	6.0	12.0	23.2	31.5	25.7	23.8	0.17
941215	0700	3.02	0.093	0.093	10.72	10.72	10.0	16.0	24.5	32.1	27.3	25.9	0.18
941215	1000	3.06	0.093	0.093	10.72	10.72	8.0	14.0	23.7	32.0	27.5	22.9	0.17
941215	1300	2.96	0.093	0.093	10.72	10.72	8.0	14.0	20.4	31.0	26.9	24.8	0.17
941215	1600	2.84	0.093	0.083	10.72	11.98	6.0	10.0	22.2	32.6	23.8	22.1	0.19
941215	1900	2.78	0.083	0.083	11.98	11.98	10.0	12.0	21.1	34.0	26.7	23.5	0.19
941215	2200	2.69	0.083	0.083	11.98	11.98	10.0	10.0	14.6	30.4	27.9	26.6	0.15
941216	0100	2.86	0.083	0.083	11.98	11.98	0.0	6.0	9.5	29.1	28.6	22.3	0.13
941216	0400	2.71	0.083	0.083	11.98	11.98	2.0	8.0	11.1	30.4	28.6	23.9	0.15
941216	0700	2.52	0.083	0.083	11.98	11.98	10.0	10.0	14.5	32.3	29.2	25.4	0.16
941216	1000	2.42	0.083	0.083	11.98	11.98	6.0	6.0	13.4	31.1	28.6	25.0	0.14
941216	1300	2.43	0.074	0.083	13.56	11.98	2.0	4.0	14.3	30.9	27.9	24.1	0.14
941216	1600	2.56	0.074	0.074	13.56	13.56	-12.0	6.0	12.3	31.1	27.5	20.4	0.17
941216	1900	2.67	0.074	0.074	13.56	13.56	-14.0	-8.0	4.6	28.9	27.9	21.1	0.17
941216	2200	2.41	0.074	0.074	13.56	13.56	-8.0	4.0	0.5	27.1	27.2	21.8	0.15
941217	0100	2.45	0.074	0.074	13.56	13.56	-10.0	-8.0	-4.2	24.8	25.7	20.2	0.13
941217	0400	2.52	0.074	0.074	13.56	13.56	-26.0	-12.0	-9.4	28.7	27.9	24.9	0.15
941217	0700	2.36	0.074	0.074	13.56	13.56	-22.0	2.0	-5.8	28.5	28.5	25.0	0.19
941217	1300	2.27	0.074	0.074	13.56	13.56	-12.0	-10.0	-4.0	24.0	24.7	21.8	0.13
941217	1600	2.24	0.074	0.074	13.56	13.56	-10.0	-10.0	-4.8	24.7	25.3	20.5	0.17
941217	1900	2.22	0.074	0.074	13.56	13.56	-10.0	-10.0	-4.9	23.9	24.5	22.7	0.19
941217	2200	2.31	0.074	0.064	13.56	15.63	-12.0	-10.0	-8.8	23.0	23.1	25.4	0.16
941218	0100	2.45	0.064	0.064	15.63	15.63	0.0	-8.0	-4.6	21.5	21.6	23.9	0.15
941218	0400	2.31	0.064	0.064	15.63	15.63	0.0	-6.0	-6.3	27.1	26.9	29.7	0.18
941218	0700	2.32	0.064	0.064	15.63	15.63	-12.0	-8.0	-5.8	24.4	24.6	25.8	0.18
941218	1000	2.16	0.064	0.064	15.63	15.63	2.0	-2.0	-6.3	25.0	25.1	27.2	0.16
941218	1300	2.22	0.064	0.064	15.63	15.63	2.0	0.0	0.9	24.4	24.6	27.2	0.15
941218	1600	2.24	0.064	0.064	15.63	15.63	10.0	-2.0	2.3	24.7	25.3	28.7	0.16
941218	1900	2.03	0.064	0.064	15.63	15.63	10.0	2.0	5.0	26.8	26.5	27.1	0.19
941218	2200	2.01	0.064	0.064	15.63	15.63	2.0	2.0	2.3	23.2	22.8	22.6	0.16
941219	0100	1.91	0.064	0.064	15.63	15.63	2.0	2.0	5.4	24.9	24.2	24.4	0.15
941219	0400	1.81	0.064	0.064	15.63	15.63	4.0	2.0	9.1	27.5	22.9	24.8	0.17
941219	0700	1.74	0.064	0.064	15.63	15.63	6.0	6.0	10.2	29.7	23.9	22.8	0.32
941219	1000	1.83	0.064	0.064	15.63	15.63	4.0	6.0	15.2	33.3	22.5	20.5	0.20
941219	1600	1.50	0.074	0.074	13.56	13.56	-8.0	18.0	12.1	29.2	19.8	19.0	0.17

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
941219	1900	1.40	0.074	0.074	13.56	13.56	-8.0	14.0	15.3	27.9	20.3	22.7	0.22
941219	2200	1.29	0.074	0.074	13.56	13.56	6.0	14.0	16.7	28.8	20.2	20.7	0.14
941220	0100	1.18	0.132	0.074	7.56	13.56	10.0	12.0	14.7	27.8	20.8	21.5	0.13
941220	0400	1.15	0.162	0.083	6.19	11.98	16.0	16.0	13.7	29.0	22.4	25.1	0.16
941220	0700	1.09	0.083	0.083	11.98	11.98	0.0	18.0	12.5	31.8	22.6	22.4	0.21
941220	1000	1.00	0.083	0.083	11.98	11.98	10.0	14.0	11.4	30.9	22.8	24.3	0.16
941220	1300	0.95	0.083	0.083	11.98	11.98	0.0	10.0	13.4	30.0	23.6	22.5	0.13
941220	1600	0.90	0.083	0.083	11.98	11.98	-6.0	14.0	7.0	31.7	23.8	23.8	0.14
941220	1900	0.84	0.103	0.103	9.71	9.71	6.0	16.0	8.2	30.6	24.6	22.0	0.18
941220	2200	0.78	0.113	0.103	8.87	9.71	-10.0	14.0	5.9	33.6	25.2	23.2	0.19
941221	0100	0.76	0.103	0.103	9.71	9.71	-4.0	-6.0	5.7	32.3	25.1	20.2	0.15
941221	0400	0.80	0.103	0.103	9.71	9.71	-4.0	-4.0	7.1	34.0	31.4	22.9	0.13
941221	0700	0.84	0.113	0.113	8.87	8.87	-10.0	-8.0	3.4	35.0	32.4	22.6	0.16
941221	1000	0.77	0.103	0.103	9.71	9.71	-8.0	-8.0	-9.3	33.2	32.4	20.5	0.17
941221	1300	0.79	0.113	0.113	8.87	8.87	-8.0	-8.0	-6.2	34.2	30.1	19.5	0.13
941221	1600	0.85	0.240	0.250	4.17	4.01	16.0	6.0	-2.3	37.0	30.8	26.7	0.12
941221	1900	0.98	0.210	0.220	4.75	4.54	8.0	6.0	5.3	37.7	30.0	25.8	0.10
941221	2200	1.12	0.201	0.201	4.98	4.98	4.0	4.0	9.0	37.5	29.9	25.3	0.10
941222	0100	1.18	0.201	0.191	4.98	5.24	2.0	2.0	4.0	42.1	29.2	22.2	0.08
941222	0400	1.25	0.191	0.171	5.24	5.83	-10.0	-10.0	-2.9	38.9	30.1	24.9	0.08
941222	0700	1.39	0.152	0.191	6.59	5.24	-40.0	-42.0	-11.9	46.6	30.2	25.5	0.09
941222	1000	1.66	0.142	0.132	7.04	7.56	-40.0	-40.0	-2.5	53.0	31.0	23.4	0.10
941222	1300	1.86	0.123	0.123	8.16	8.16	-18.0	-32.0	1.3	43.9	31.8	25.5	0.09
941222	1600	2.29	0.103	0.113	9.71	8.87	-28.0	-28.0	-7.6	34.1	32.3	23.4	0.12
941222	1900	2.61	0.113	0.113	8.87	8.87	-12.0	-12.0	-5.0	33.3	33.4	24.2	0.14
941222	2200	3.06	0.103	0.103	9.71	9.71	-6.0	-16.0	-2.2	31.8	33.9	27.1	0.16
941223	0100	3.50	0.074	0.083	13.56	11.98	-28.0	-28.0	-8.5	34.0	33.6	23.1	0.18
941223	0400	3.68	0.083	0.083	11.98	11.98	-24.0	-20.0	-12.2	37.0	33.8	20.7	0.19
941223	0700	3.85	0.074	0.083	13.56	11.98	-30.0	-20.0	-8.9	38.8	31.9	20.2	0.17
941223	1000	3.80	0.074	0.083	13.56	11.98	-28.0	-26.0	-2.4	37.7	32.4	22.0	0.16
941223	1300	4.12	0.074	0.074	13.56	13.56	-12.0	-12.0	-10.1	26.6	27.2	15.5	0.18
941223	1600	4.07	0.074	0.074	13.56	13.56	-12.0	-10.0	-5.7	25.4	24.7	13.0	0.18
941223	1900	4.16	0.074	0.074	13.56	13.56	-12.0	-10.0	-2.7	33.0	29.1	15.6	0.15
941223	2200	4.31	0.074	0.074	13.56	13.56	-10.0	2.0	2.9	29.4	28.2	19.3	0.18
941224	0100	3.83	0.074	0.074	13.56	13.56	-8.0	6.0	12.9	29.0	28.5	21.4	0.18
941224	0400	3.40	0.074	0.074	13.56	13.56	6.0	8.0	12.4	24.9	26.0	21.0	0.16
941224	0700	3.38	0.074	0.074	13.56	13.56	8.0	8.0	15.8	25.2	26.3	22.4	0.17
941224	1000	2.92	0.074	0.083	13.56	11.98	12.0	14.0	24.3	31.4	25.1	26.1	0.18
941224	1300	2.36	0.083	0.083	11.98	11.98	14.0	18.0	21.0	32.2	24.2	26.9	0.16
941224	1600	1.95	0.142	0.083	7.04	11.98	18.0	18.0	16.9	32.8	23.0	26.5	0.17
941224	1900	1.70	0.083	0.083	11.98	11.98	2.0	20.0	13.0	33.7	23.1	27.2	0.19
941224	2200	1.69	0.083	0.083	11.98	11.98	8.0	30.0	19.8	35.0	20.4	27.2	0.23
941225	0100	1.67	0.162	0.083	6.19	11.98	30.0	30.0	23.0	30.3	19.3	30.2	0.20
941225	0400	1.78	0.132	0.132	7.56	7.56	20.0	22.0	25.2	24.4	18.5	9.2	0.17
941225	0700	1.73	0.142	0.113	7.04	8.87	20.0	20.0	24.3	26.1	19.9	17.6	0.14
941225	1000	1.67	0.132	0.093	7.56	10.72	18.0	16.0	21.4	25.3	20.1	23.6	0.15
941225	1300	1.68	0.093	0.093	10.72	10.72	10.0	18.0	23.5	26.8	20.3	21.3	0.18
941225	1600	1.62	0.093	0.093	10.72	10.72	12.0	14.0	20.4	24.5	19.9	18.9	0.16
941225	1900	1.50	0.103	0.093	9.71	10.72	10.0	14.0	19.8	22.9	20.2	20.8	0.15
941225	2200	1.42	0.103	0.083	9.71	11.98	8.0	12.0	16.0	25.6	22.2	22.8	0.16
941226	0100	1.29	0.103	0.093	9.71	10.72	12.0	14.0	16.4	26.0	22.7	25.3	0.16
941226	0400	1.25	0.103	0.093	9.71	10.72	14.0	14.0	20.1	26.4	21.7	20.4	0.17
941226	0700	1.43	0.103	0.093	9.71	10.72	10.0	12.0	22.4	29.9	22.6	21.0	0.16

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
941226	1000	1.52	0.162	0.103	6.19	9.71	20.0	16.0	24.6	30.8	23.8	24.6	0.15
941226	1300	1.46	0.103	0.093	9.71	10.72	4.0	12.0	24.4	30.7	21.8	23.1	0.18
941226	1600	1.47	0.152	0.103	6.59	9.71	14.0	18.0	25.9	31.1	21.5	27.1	0.18
941226	1900	1.57	0.171	0.103	5.83	9.71	20.0	16.0	23.0	31.0	22.4	23.2	0.16
941226	2200	1.54	0.162	0.103	6.19	9.71	14.0	12.0	20.1	30.1	23.7	22.8	0.15
941227	0100	1.45	0.093	0.103	10.72	9.71	2.0	14.0	19.6	32.3	26.5	25.0	0.15
941227	0400	1.37	0.093	0.093	10.72	10.72	0.0	12.0	18.7	30.6	26.6	19.7	0.13
941227	0700	1.35	0.093	0.093	10.72	10.72	4.0	8.0	17.2	30.2	26.6	18.9	0.10
941227	1000	1.36	0.093	0.093	10.72	10.72	8.0	12.0	13.9	29.9	27.3	19.8	0.11
941227	1300	1.28	0.103	0.103	9.71	9.71	10.0	12.0	14.6	32.8	30.0	21.9	0.15
941227	1600	1.20	0.093	0.093	10.72	10.72	-2.0	2.0	15.9	33.0	28.7	20.6	0.15
941227	1900	1.11	0.093	0.093	10.72	10.72	2.0	2.0	11.0	31.2	28.6	18.1	0.12
941227	2200	1.09	0.093	0.103	10.72	9.71	10.0	2.0	8.8	31.6	30.4	29.7	0.13
941228	0100	1.00	0.093	0.093	10.72	10.72	6.0	6.0	7.5	30.2	29.4	22.1	0.20
941228	0400	0.92	0.093	0.093	10.72	10.72	2.0	0.0	1.9	28.3	27.8	18.6	0.18
941228	0700	0.84	0.103	0.093	9.71	10.72	6.0	4.0	3.1	27.6	28.1	22.3	0.17
941228	1000	0.84	0.093	0.093	10.72	10.72	8.0	-4.0	1.6	27.7	28.7	21.9	0.13
941228	1300	0.77	0.103	0.103	9.71	9.71	-14.0	-4.0	-15.7	31.1	31.9	24.2	0.20
941228	1600	0.67	0.093	0.103	10.72	9.71	0.0	0.0	-9.4	32.7	32.3	27.2	0.20
941228	1900	0.61	0.103	0.103	9.71	9.71	-10.0	-8.0	-19.7	33.6	31.4	23.9	0.18
941228	2200	0.57	0.103	0.113	9.71	8.87	-2.0	-12.0	-14.6	32.4	28.5	31.6	0.18
941229	0100	0.51	0.113	0.113	8.87	8.87	2.0	-32.0	-12.5	34.2	31.1	31.5	0.23
941229	0400	0.72	0.279	0.279	3.59	3.59	50.0	50.0	22.1	52.8	23.8	11.6	0.14
941229	0700	1.30	0.171	0.171	5.83	5.83	42.0	46.0	38.5	21.3	17.8	12.3	0.16
941229	1000	1.31	0.142	0.152	7.04	6.59	22.0	24.0	29.0	22.5	19.2	17.1	0.14
941229	1300	1.26	0.152	0.152	6.59	6.59	24.0	26.0	30.8	22.4	18.9	14.0	0.16
941229	1600	1.18	0.152	0.152	6.59	6.59	20.0	34.0	27.4	22.7	18.9	13.8	0.17
941229	1900	1.31	0.171	0.162	5.83	6.19	32.0	32.0	29.2	20.8	16.4	10.5	0.16
941229	2200	1.53	0.152	0.162	6.59	6.19	20.0	30.0	30.2	22.0	18.0	14.3	0.15
941230	0100	1.68	0.152	0.152	6.59	6.59	24.0	28.0	29.5	23.1	20.2	15.1	0.16
941230	0400	1.68	0.142	0.142	7.04	7.04	20.0	20.0	32.6	24.1	20.8	14.0	0.17
941230	0700	1.76	0.142	0.142	7.04	7.04	20.0	22.0	27.0	23.5	20.4	17.8	0.15
941230	1000	1.66	0.123	0.132	8.16	7.56	16.0	20.0	26.6	23.5	21.4	17.6	0.12
941230	1300	1.51	0.123	0.123	8.16	8.16	16.0	18.0	25.5	27.8	24.1	16.9	0.13
941230	1600	1.42	0.132	0.123	7.56	8.16	16.0	22.0	23.8	28.3	24.2	23.4	0.15
941230	1900	1.28	0.132	0.132	7.56	7.56	24.0	22.0	21.9	30.0	24.0	18.3	0.14
941230	2200	1.22	0.132	0.132	7.56	7.56	22.0	14.0	18.0	32.3	27.0	23.0	0.12
941231	0100	1.24	0.132	0.132	7.56	7.56	12.0	12.0	12.5	33.0	28.4	16.2	0.12
941231	0400	1.27	0.093	0.093	10.72	10.72	-8.0	-8.0	11.4	36.6	31.3	17.7	0.15
941231	0700	1.15	0.054	0.103	18.45	9.71	-6.0	-6.0	19.8	39.0	34.7	20.6	0.15
941231	1000	1.05	0.103	0.103	9.71	9.71	-4.0	-10.0	14.8	36.8	32.3	19.7	0.18
941231	1300	1.01	0.064	0.083	15.63	11.98	-12.0	-10.0	11.7	32.9	31.8	23.7	0.19
941231	1600	1.06	0.074	0.083	13.56	11.98	-12.0	-12.0	7.3	33.8	35.7	24.6	0.18
941231	1900	1.07	0.093	0.083	10.72	11.98	-4.0	-10.0	4.1	33.5	37.0	24.4	0.21
941231	2200	1.03	0.074	0.083	13.56	11.98	-4.0	-10.0	-11.1	31.4	33.2	18.2	0.18
950101	0100	1.21	0.083	0.083	11.98	11.98	-8.0	-10.0	-25.1	35.4	28.1	19.3	0.17
950101	0400	1.39	0.142	0.142	7.04	7.04	-42.0	-10.0	-29.8	36.4	27.0	32.5	0.16
950101	0700	1.27	0.142	0.123	7.04	8.16	-42.0	-44.0	-27.4	37.5	28.7	34.0	0.18
950101	1000	1.07	0.123	0.123	8.16	8.16	-40.0	-42.0	-24.3	36.1	25.9	27.3	0.17
950101	1300	0.92	0.123	0.113	8.16	8.87	-36.0	-8.0	-21.9	35.3	24.7	32.6	0.17
950101	1600	0.86	0.123	0.123	8.16	8.16	-38.0	-40.0	-30.4	38.2	28.0	34.7	0.21
950101	1900	0.77	0.123	0.123	8.16	8.16	-42.0	-42.0	-32.8	38.0	22.6	19.6	0.25
950101	2200	0.66	0.123	0.123	8.16	8.16	-40.0	-40.0	-30.5	36.6	21.8	28.4	0.29

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950102	0100	0.61	0.132	0.064	7.56	15.63	-40.0	-38.0	-25.7	35.4	25.1	27.9	0.26
950102	0400	0.59	0.132	0.132	7.56	7.56	-38.0	-38.0	-25.3	34.0	22.8	22.3	0.28
950102	0700	0.52	0.142	0.064	7.04	15.63	-42.0	-42.0	-22.5	37.2	24.9	28.5	0.30
950102	1000	0.47	0.132	0.064	7.56	15.63	-42.0	-42.0	-2.5	45.3	22.6	25.6	0.40
950102	1300	0.56	0.064	0.064	15.63	15.63	-8.0	54.0	21.5	62.8	19.6	22.1	0.29
950102	1600	0.71	0.191	0.064	5.24	15.63	44.0	46.0	32.5	43.9	17.5	21.5	0.20
950102	1900	0.73	0.171	0.064	5.83	15.63	42.0	44.0	33.7	38.3	18.2	20.5	0.17
950102	2200	0.74	0.152	0.152	6.59	6.59	22.0	44.0	30.9	33.5	14.4	13.5	0.23
950103	0100	0.73	0.191	0.191	5.24	5.24	40.0	48.0	34.9	30.8	13.8	7.8	0.20
950103	0400	0.62	0.210	0.064	4.75	15.63	48.0	48.0	34.3	40.8	19.5	22.3	0.20
950103	0700	0.74	0.191	0.259	5.24	3.86	46.0	44.0	39.4	34.4	24.7	26.8	0.21
950103	1000	0.74	0.181	0.201	5.52	4.98	46.0	46.0	39.3	37.3	25.4	21.1	0.19
950103	1300	0.72	0.162	0.171	6.19	5.83	30.0	36.0	30.5	35.3	23.3	14.1	0.16
950103	1600	0.71	0.181	0.181	5.52	5.52	28.0	26.0	26.3	41.1	25.2	15.4	0.13
950103	1900	0.66	0.171	0.181	5.83	5.52	24.0	24.0	22.4	46.4	28.4	18.0	0.18
950103	2200	0.54	0.201	0.064	4.98	15.63	34.0	34.0	17.4	48.7	30.2	20.0	0.18
950104	0100	0.46	0.064	0.064	15.63	15.63	-8.0	-8.0	17.5	45.8	31.7	22.7	0.21
950104	0400	0.43	0.132	0.132	7.56	7.56	-12.0	-12.0	7.9	42.4	30.6	20.6	0.23
950104	0700	0.43	0.123	0.064	8.16	15.63	-10.0	-10.0	20.0	57.4	26.5	23.8	0.24
950104	1000	0.40	0.298	0.064	3.35	15.63	68.0	66.0	21.5	60.8	25.1	26.2	0.19
950104	1300	0.36	0.064	0.064	15.63	15.63	-8.0	-2.0	16.7	52.9	24.6	23.2	0.22
950104	1600	0.34	0.103	0.103	9.71	9.71	2.0	4.0	13.1	47.8	27.5	22.3	0.21
950104	1900	0.36	0.103	0.103	9.71	9.71	6.0	4.0	18.3	49.3	26.7	21.3	0.19
950104	2200	0.49	0.240	0.230	4.17	4.35	54.0	56.0	38.6	32.6	17.8	12.3	0.20
950105	0100	0.96	0.210	0.210	4.75	4.75	52.0	52.0	48.5	15.3	13.9	11.5	0.27
950105	0400	1.36	0.171	0.171	5.83	5.83	34.0	42.0	39.7	19.7	13.9	11.2	0.21
950105	0700	1.40	0.152	0.152	6.59	6.59	26.0	24.0	36.4	24.1	15.4	9.4	0.23
950105	1000	1.64	0.142	0.142	7.04	7.04	24.0	24.0	36.7	22.4	16.6	13.4	0.21
950105	1300	1.16	0.142	0.142	7.04	7.04	22.0	38.0	35.1	21.9	16.3	14.3	0.16
950105	1600	0.92	0.142	0.162	7.04	6.19	18.0	30.0	29.3	22.6	17.0	12.6	0.10
950105	1900	0.78	0.132	0.171	7.56	5.83	16.0	22.0	27.3	24.0	18.7	14.1	0.13
950105	2200	0.65	0.142	0.132	7.04	7.56	18.0	18.0	26.4	26.0	20.0	13.5	0.15
950106	0100	0.50	0.132	0.132	7.56	7.56	14.0	14.0	22.8	26.7	22.9	13.0	0.18
950106	0400	0.39	0.142	0.142	7.04	7.04	12.0	12.0	19.3	31.9	26.3	14.6	0.15
950106	0700	0.33	0.142	0.162	7.04	6.19	8.0	-10.0	5.2	35.2	32.5	25.1	0.21
950106	1000	0.30	0.113	0.113	8.87	8.87	-12.0	-10.0	-3.0	32.4	31.9	16.0	0.20
950106	1300	0.28	0.123	0.123	8.16	8.16	-12.0	-10.0	-13.5	26.7	27.3	16.3	0.23
950106	1600	0.29	0.132	0.132	7.56	7.56	-4.0	-10.0	-14.4	25.2	23.9	16.0	0.24
950106	1900	0.66	0.181	0.171	5.52	5.83	-44.0	-44.0	-43.0	19.4	15.6	10.1	0.22
950106	2200	1.23	0.152	0.152	6.59	6.59	-42.0	-44.0	-45.5	14.9	11.5	11.1	0.28
950107	0100	1.37	0.210	0.113	4.75	8.87	-46.0	-44.0	-42.6	16.0	11.1	11.8	0.26
950107	0400	1.31	0.113	0.103	8.87	9.71	-36.0	-36.0	-34.7	16.4	14.2	15.6	0.18
950107	0700	1.13	0.093	0.093	10.72	10.72	-20.0	-38.0	-35.6	17.5	14.8	16.9	0.20
950107	1000	1.03	0.093	0.093	10.72	10.72	-26.0	-40.0	-36.6	20.9	18.5	18.4	0.25
950107	1300	0.97	0.093	0.093	10.72	10.72	-20.0	-40.0	-35.7	22.5	19.8	19.6	0.24
950107	1600	0.90	0.093	0.083	10.72	11.98	-22.0	-22.0	-29.4	23.5	20.5	21.3	0.19
950107	1900	0.97	0.093	0.093	10.72	10.72	-20.0	-22.0	0.4	68.5	24.8	18.7	0.19
950107	2200	1.44	0.191	0.191	5.24	5.24	50.0	52.0	29.7	58.2	19.8	12.1	0.19
950108	0100	1.43	0.181	0.181	5.52	5.52	46.0	46.0	32.9	29.2	17.5	10.6	0.22
950108	0400	1.22	0.162	0.171	6.19	5.83	38.0	38.0	30.8	31.2	17.2	12.3	0.22
950108	0700	1.27	0.181	0.171	5.52	5.83	38.0	38.0	25.9	34.9	18.2	12.7	0.19
950108	1000	1.25	0.162	0.162	6.19	6.19	28.0	28.0	25.8	38.1	21.7	13.1	0.22
950108	1300	1.07	0.162	0.103	6.19	9.71	24.0	40.0	28.2	38.7	22.9	31.1	0.22
950108	1600	0.92	0.132	0.142	7.56	7.04	8.0	34.0	19.9	37.9	22.5	21.1	0.16

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950108	1900	0.93	0.142	0.142	7.04	7.04	8.0	4.0	14.1	32.0	24.3	15.2	0.12
950108	2200	0.83	0.152	0.152	6.59	6.59	14.0	8.0	12.6	30.6	26.1	16.7	0.15
950109	0100	0.77	0.152	0.152	6.59	6.59	6.0	10.0	12.1	30.5	27.4	21.6	0.18
950109	0400	0.68	0.142	0.142	7.04	7.04	8.0	8.0	4.4	32.1	27.1	18.5	0.22
950109	0700	0.63	0.152	0.152	6.59	6.59	12.0	10.0	4.6	31.7	27.1	17.7	0.16
950109	1300	0.59	0.162	0.103	6.19	9.71	4.0	4.0	-0.8	31.6	27.6	26.1	0.26
950109	1600	0.58	0.083	0.093	11.98	10.72	6.0	4.0	2.1	32.4	29.3	29.9	0.25
950109	1900	0.58	0.103	0.093	9.71	10.72	-6.0	0.0	-10.3	29.8	29.1	28.2	0.18
950109	2200	0.56	0.093	0.093	10.72	10.72	6.0	-12.0	-3.7	30.6	29.4	24.1	0.24
950110	0100	0.55	0.113	0.113	8.87	8.87	-16.0	2.0	-2.1	35.7	28.6	24.8	0.25
950110	0400	0.75	0.279	0.269	3.59	3.72	36.0	38.0	20.6	39.2	22.7	19.9	0.20
950110	0700	0.93	0.210	0.210	4.75	4.75	22.0	20.0	20.2	33.5	22.7	14.5	0.14
950110	1000	0.95	0.210	0.201	4.75	4.98	22.0	10.0	19.6	34.9	25.2	22.5	0.12
950110	1300	0.88	0.191	0.191	5.24	5.24	28.0	44.0	25.0	39.4	26.8	23.9	0.13
950110	1600	0.81	0.191	0.191	5.24	5.24	40.0	42.0	24.5	42.6	26.3	18.1	0.13
950110	1900	0.76	0.201	0.201	4.98	4.98	42.0	42.0	22.6	45.9	28.1	17.1	0.12
950110	2200	0.78	0.181	0.181	5.52	5.52	28.0	-12.0	16.7	45.1	30.6	29.4	0.13
950111	0100	0.76	0.181	0.181	5.52	5.52	38.0	-2.0	14.1	45.5	30.5	35.7	0.15
950111	0400	0.70	0.162	0.103	6.19	9.71	-6.0	-6.0	6.5	43.1	31.1	29.0	0.15
950111	0700	0.65	0.083	0.083	11.98	11.98	-6.0	-4.0	7.6	41.0	33.0	24.6	0.17
950111	1600	0.64	0.093	0.093	10.72	10.72	-6.0	-6.0	1.0	34.8	34.8	26.5	0.20
950111	1900	0.61	0.093	0.093	10.72	10.72	-18.0	-10.0	-17.7	38.1	39.0	24.9	0.19
950111	2200	0.70	0.191	0.093	5.24	10.72	-42.0	-42.0	-23.8	38.7	34.1	28.4	0.15
950112	0100	0.77	0.181	0.181	5.52	5.52	-42.0	-38.0	-32.3	35.6	33.9	22.5	0.16
950112	0400	0.93	0.171	0.162	5.83	6.19	-44.0	-40.0	-36.4	30.7	30.7	22.1	0.15
950112	0700	0.92	0.162	0.152	6.19	6.59	-46.0	-42.0	-35.0	34.6	32.9	31.4	0.16
950112	1000	0.88	0.142	0.142	7.04	7.04	-40.0	-40.0	-35.2	33.8	32.0	32.5	0.15
950112	1300	0.83	0.142	0.142	7.04	7.04	-40.0	-40.0	-31.9	38.2	33.2	32.6	0.16
950112	1600	0.83	0.142	0.142	7.04	7.04	-42.0	-42.0	-37.3	35.6	31.6	21.4	0.19
950112	1900	0.85	0.132	0.132	7.56	7.56	-40.0	-42.0	-38.0	36.5	30.5	32.4	0.16
950112	2200	0.86	0.142	0.142	7.04	7.04	-40.0	-42.0	-29.2	38.5	28.4	30.3	0.15
950113	0100	0.95	0.142	0.103	7.04	9.71	-44.0	-44.0	-28.4	38.0	27.0	23.8	0.17
950113	0400	0.96	0.152	0.093	6.59	10.72	-44.0	-42.0	-30.3	36.1	26.1	22.0	0.19
950113	0700	0.95	0.093	0.093	10.72	10.72	-6.0	-42.0	-29.0	34.6	24.8	18.7	0.17
950113	1000	0.92	0.093	0.093	10.72	10.72	-6.0	-12.0	-25.8	33.2	26.4	25.8	0.14
950113	1300	0.90	0.093	0.093	10.72	10.72	-8.0	-10.0	-26.6	34.9	26.5	20.3	0.16
950113	1600	0.91	0.093	0.093	10.72	10.72	-2.0	-40.0	-28.4	34.5	26.6	26.7	0.20
950113	1900	0.95	0.142	0.093	7.04	10.72	-42.0	-42.0	-27.5	33.8	24.2	23.0	0.20
950113	2200	0.92	0.093	0.093	10.72	10.72	-6.0	-14.0	-26.7	30.6	25.3	23.3	0.15
950114	0100	0.96	0.093	0.093	10.72	10.72	-8.0	-40.0	-31.4	32.9	28.3	24.6	0.18
950114	0400	1.06	0.142	0.132	7.04	7.56	-38.0	-40.0	-33.2	31.1	26.2	27.9	0.18
950114	0700	1.17	0.132	0.132	7.56	7.56	-44.0	-44.0	-30.6	32.2	26.7	21.4	0.18
950114	1000	1.18	0.132	0.123	7.56	8.16	-40.0	-38.0	-28.8	30.6	26.6	28.0	0.15
950114	1300	1.38	0.123	0.123	8.16	8.16	-8.0	-20.0	-25.6	28.8	26.4	24.9	0.14
950114	1600	1.49	0.132	0.123	7.56	8.16	-38.0	-22.0	-26.0	26.9	25.6	24.4	0.16
950114	1900	1.49	0.123	0.113	8.16	8.87	-38.0	-38.0	-32.6	29.3	28.4	27.7	0.15
950114	2200	1.61	0.113	0.113	8.87	8.87	-38.0	-38.0	-33.8	27.9	26.9	25.9	0.14
950115	0100	1.89	0.113	0.113	8.87	8.87	-24.0	-22.0	-26.3	24.9	24.3	21.5	0.16
950115	0400	2.08	0.093	0.093	10.72	10.72	-28.0	-24.0	-29.4	25.0	24.4	22.4	0.20
950115	0700	2.19	0.093	0.093	10.72	10.72	-24.0	-22.0	-28.2	25.3	24.7	26.2	0.19
950115	1000	2.51	0.093	0.093	10.72	10.72	-36.0	-36.0	-34.4	19.3	21.0	19.8	0.20
950115	1300	2.87	0.093	0.093	10.72	10.72	-34.0	-26.0	-32.8	20.7	22.1	21.2	0.24
950115	1600	2.95	0.083	0.083	11.98	11.98	-18.0	-22.0	-28.0	19.5	20.7	22.9	0.23

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950115	1900	2.60	0.083	0.083	11.98	11.98	-16.0	-24.0	-23.7	21.1	21.4	24.1	0.21
950115	2200	2.29	0.083	0.083	11.98	11.98	-14.0	-24.0	-22.8	21.8	21.9	25.5	0.19
950116	0100	2.18	0.083	0.083	11.98	11.98	-36.0	-20.0	-23.7	21.3	21.6	21.7	0.18
950116	0400	2.01	0.093	0.093	10.72	10.72	-16.0	-24.0	-21.5	23.9	24.1	24.3	0.19
950116	0700	1.88	0.093	0.093	10.72	10.72	-26.0	-22.0	-24.1	25.0	25.1	24.6	0.19
950116	1000	1.85	0.093	0.093	10.72	10.72	-20.0	-22.0	-25.2	25.0	25.1	23.0	0.18
950116	1300	1.78	0.093	0.093	10.72	10.72	-32.0	-24.0	-28.4	22.7	23.1	20.2	0.14
950116	1600	1.64	0.093	0.093	10.72	10.72	-32.0	-32.0	-25.0	25.2	24.6	15.0	0.14
950116	1900	1.89	0.093	0.093	10.72	10.72	-12.0	58.0	9.5	70.9	28.0	28.2	0.23
950116	2200	2.09	0.181	0.093	5.52	10.72	42.0	44.0	17.9	61.1	22.9	30.8	0.22
950117	0100	2.17	0.181	0.093	5.52	10.72	40.0	40.0	21.3	52.2	19.9	26.5	0.22
950117	0400	2.00	0.171	0.162	5.83	6.19	30.0	54.0	26.1	47.7	22.2	15.6	0.22
950117	0700	1.96	0.162	0.093	6.19	10.72	40.0	36.0	26.7	42.9	21.1	28.6	0.21
950117	1000	1.82	0.152	0.093	6.59	10.72	24.0	52.0	22.5	44.1	19.8	31.5	0.21
950117	1300	1.70	0.162	0.093	6.19	10.72	22.0	32.0	18.3	44.3	21.5	30.8	0.17
950117	1600	1.72	0.171	0.093	5.83	10.72	32.0	34.0	17.6	45.6	22.7	32.0	0.19
950117	1900	1.70	0.093	0.093	10.72	10.72	0.0	54.0	22.0	44.9	23.3	32.5	0.21
950117	2200	1.71	0.093	0.093	10.72	10.72	-6.0	36.0	16.7	43.1	21.3	30.4	0.18
950118	0100	1.56	0.103	0.103	9.71	9.71	-4.0	10.0	16.3	35.8	24.8	26.9	0.13
950118	0400	1.64	0.093	0.093	10.72	10.72	2.0	12.0	13.4	31.6	23.4	31.4	0.15
950118	0700	1.64	0.142	0.103	7.04	9.71	12.0	12.0	16.8	32.6	25.2	31.1	0.15
950118	1000	1.64	0.142	0.093	7.04	10.72	14.0	14.0	13.6	33.3	24.0	29.4	0.15
950118	1300	1.63	0.142	0.103	7.04	9.71	14.0	14.0	17.6	30.4	23.3	29.0	0.14
950118	1600	1.73	0.132	0.103	7.56	9.71	10.0	12.0	19.8	31.9	24.4	30.2	0.14
950118	1900	1.84	0.103	0.103	9.71	9.71	16.0	16.0	21.6	30.5	26.8	28.8	0.15
950118	2200	1.81	0.113	0.103	8.87	9.71	10.0	14.0	20.3	28.0	25.5	30.0	0.15
950119	0100	1.75	0.103	0.103	9.71	9.71	10.0	14.0	17.0	26.6	25.7	24.9	0.11
950119	0400	1.70	0.103	0.103	9.71	9.71	14.0	14.0	16.1	28.4	26.6	23.7	0.12
950119	0700	1.80	0.103	0.103	9.71	9.71	10.0	12.0	16.8	34.3	28.7	28.2	0.15
950119	1000	1.71	0.103	0.093	9.71	10.72	14.0	12.0	16.6	34.8	30.7	34.2	0.14
950119	1300	1.58	0.103	0.103	9.71	9.71	10.0	8.0	13.7	33.0	29.9	30.0	0.12
950119	1600	1.63	0.093	0.093	10.72	10.72	2.0	8.0	10.5	32.1	29.5	28.7	0.12
950119	1900	1.64	0.093	0.093	10.72	10.72	-10.0	8.0	5.2	31.5	30.4	29.7	0.15
950119	2200	1.62	0.093	0.093	10.72	10.72	-4.0	-4.0	3.5	32.3	30.8	26.3	0.14
950120	0100	1.60	0.093	0.093	10.72	10.72	-6.0	-4.0	0.8	30.8	30.5	26.6	0.12
950120	0400	1.50	0.093	0.093	10.72	10.72	-2.0	-8.0	-11.3	32.6	32.9	28.5	0.17
950120	0700	1.47	0.093	0.093	10.72	10.72	-2.0	-8.0	-15.3	32.9	30.7	27.6	0.17
950120	1000	1.15	0.152	0.093	6.59	10.72	-46.0	-42.0	-22.6	36.2	29.6	29.2	0.24
950120	1300	0.84	0.093	0.093	10.72	10.72	-10.0	-12.0	-17.9	37.1	29.1	27.8	0.23
950120	1600	0.74	0.093	0.093	10.72	10.72	-12.0	-12.0	-18.1	33.4	25.6	23.2	0.18
950120	1900	0.65	0.093	0.093	10.72	10.72	-6.0	-10.0	-14.5	36.4	24.7	28.3	0.26
950120	2200	0.55	0.093	0.093	10.72	10.72	-14.0	-40.0	-21.9	37.9	25.9	30.5	0.33
950121	0100	0.47	0.093	0.093	10.72	10.72	-24.0	-38.0	-23.0	34.7	24.6	31.2	0.30
950121	0400	0.42	0.054	0.093	18.45	10.72	-10.0	-10.0	-15.5	33.7	26.0	34.9	0.35
950121	0700	0.41	0.064	0.093	15.63	10.72	-6.0	-24.0	-21.8	32.4	25.8	29.4	0.36
950121	1000	0.40	0.123	0.064	8.16	15.63	-40.0	-40.0	-17.2	38.8	29.7	26.4	0.34
950121	1300	0.40	0.054	0.064	18.45	15.63	-10.0	-10.0	-11.8	39.0	34.4	28.4	0.41
950121	1600	0.40	0.064	0.064	15.63	15.63	-10.0	-10.0	-14.2	34.9	33.6	24.0	0.32
950121	1900	0.42	0.064	0.064	15.63	15.63	-10.0	-10.0	-13.7	39.3	35.9	28.5	0.32
950121	2200	0.41	0.064	0.064	15.63	15.63	-8.0	-8.0	-12.0	44.1	31.3	22.1	0.37
950122	0100	0.47	0.064	0.064	15.63	15.63	-8.0	-10.0	8.3	71.3	24.6	26.7	0.32
950122	0400	0.51	0.259	0.064	3.86	15.63	60.0	64.0	21.9	72.1	20.6	24.1	0.28
950122	0700	0.53	0.064	0.064	15.63	15.63	-10.0	64.0	24.9	71.9	19.8	21.3	0.32

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950122	1000	0.56	0.308	0.064	3.25	15.63	68.0	66.0	24.5	72.5	21.6	25.8	0.32
950122	1300	0.46	0.054	0.064	18.45	15.63	-10.0	66.0	8.7	63.5	28.3	34.4	0.47
950122	1600	0.44	0.064	0.064	15.63	15.63	8.0	8.0	4.9	35.8	31.7	29.6	0.32
950122	1900	0.43	0.064	0.064	15.63	15.63	8.0	8.0	3.4	38.6	33.2	29.1	0.26
950122	2200	0.41	0.064	0.064	15.63	15.63	-10.0	6.0	-9.9	34.5	37.5	26.5	0.35
950123	0100	0.39	0.064	0.054	15.63	18.45	-8.0	-8.0	-11.6	34.4	32.5	30.8	0.45
950123	0400	0.37	0.054	0.054	18.45	18.45	-10.0	-10.0	-11.2	31.7	30.4	25.3	0.51
950123	0700	0.41	0.064	0.064	15.63	15.63	-10.0	-8.0	-11.2	32.5	31.9	27.9	0.42
950123	1000	0.43	0.064	0.064	15.63	15.63	-8.0	-8.0	-2.7	33.4	34.0	25.2	0.32
950123	1300	0.54	0.064	0.054	15.63	18.45	-10.0	52.0	26.1	54.8	25.6	25.1	0.29
950123	1600	0.56	0.064	0.064	15.63	15.63	-10.0	-10.0	26.6	52.7	24.2	19.0	0.22
950123	1900	0.52	0.054	0.064	18.45	15.63	-12.0	50.0	23.0	44.6	25.9	22.1	0.25
950123	2200	0.54	0.064	0.064	15.63	15.63	-10.0	54.0	24.4	44.5	21.6	22.6	0.21
950124	0100	0.65	0.230	0.230	4.35	4.35	50.0	52.0	33.5	33.1	16.4	13.7	0.24
950124	0400	0.81	0.201	0.201	4.98	4.98	28.0	28.0	30.1	25.4	16.6	13.1	0.17
950124	0700	0.97	0.181	0.181	5.52	5.52	26.0	48.0	32.0	25.2	18.3	14.2	0.14
950124	1000	1.05	0.171	0.171	5.83	5.83	36.0	34.0	36.3	19.0	16.1	9.9	0.16
950124	1300	0.85	0.181	0.181	5.52	5.52	44.0	46.0	32.4	19.4	15.8	10.3	0.17
950124	1600	0.87	0.181	0.181	5.52	5.52	44.0	44.0	33.7	19.1	14.5	10.0	0.14
950124	1900	0.91	0.181	0.181	5.52	5.52	40.0	40.0	33.7	15.8	14.0	8.2	0.12
950124	2200	0.92	0.162	0.171	6.19	5.83	28.0	44.0	33.8	18.9	15.0	12.3	0.15
950125	0100	1.08	0.162	0.162	6.19	6.19	36.0	36.0	36.0	17.2	15.2	9.7	0.15
950125	0400	1.05	0.171	0.162	5.83	6.19	38.0	38.0	32.5	18.1	13.2	10.2	0.13
950125	0700	1.03	0.162	0.152	6.19	6.59	36.0	38.0	29.7	19.6	14.3	12.1	0.11
950125	1000	0.99	0.171	0.162	5.83	6.19	42.0	36.0	29.2	21.2	16.5	11.8	0.14
950125	1300	0.88	0.162	0.162	6.19	6.19	26.0	28.0	24.1	26.0	17.4	11.4	0.18
950125	1600	0.83	0.142	0.093	7.04	10.72	26.0	30.0	17.7	33.1	17.0	16.3	0.20
950125	1900	0.72	0.162	0.103	6.19	9.71	34.0	32.0	12.1	35.3	19.3	25.7	0.16
950125	2200	0.63	0.162	0.103	6.19	9.71	30.0	30.0	13.7	35.1	18.2	22.2	0.24
950126	0100	0.54	0.171	0.103	5.83	9.71	34.0	12.0	11.1	34.4	20.4	21.2	0.24
950126	0400	0.57	0.318	0.103	3.15	9.71	42.0	34.0	18.9	37.9	18.4	22.7	0.26
950126	0700	0.93	0.240	0.103	4.17	9.71	48.0	46.0	32.9	26.3	13.4	26.1	0.21
950126	1000	1.04	0.171	0.171	5.83	5.83	30.0	30.0	28.1	19.2	13.4	9.6	0.13
950126	1300	1.01	0.162	0.171	6.19	5.83	24.0	26.0	29.4	21.2	16.4	11.6	0.14
950126	1600	0.86	0.171	0.171	5.83	5.83	32.0	32.0	27.6	23.3	16.8	10.4	0.15
950126	1900	0.81	0.162	0.162	6.19	6.19	26.0	26.0	28.3	23.1	14.6	7.2	0.12
950126	2200	0.73	0.171	0.181	5.83	5.52	26.0	26.0	28.5	24.7	15.5	12.2	0.11
950127	0100	0.65	0.171	0.191	5.83	5.24	26.0	32.0	27.1	30.3	18.1	16.3	0.16
950127	0400	0.62	0.201	0.171	4.98	5.83	44.0	30.0	27.1	27.8	18.2	13.8	0.17
950127	0700	0.63	0.171	0.191	5.83	5.24	32.0	36.0	26.4	25.9	15.5	10.2	0.14
950127	1000	0.73	0.162	0.171	6.19	5.83	22.0	40.0	27.3	23.0	16.5	13.9	0.10
950127	1300	0.74	0.181	0.171	5.52	5.83	32.0	32.0	26.6	23.3	16.3	11.3	0.13
950127	1600	0.59	0.191	0.191	5.24	5.24	42.0	26.0	23.2	34.9	17.6	14.2	0.16
950127	1900	0.47	0.162	0.103	6.19	9.71	20.0	24.0	16.8	38.1	18.5	19.1	0.18
950127	2200	0.41	0.103	0.103	9.71	9.71	-10.0	24.0	9.3	40.0	23.3	18.6	0.16
950128	0100	0.36	0.191	0.103	5.24	9.71	30.0	-10.0	1.9	40.7	29.9	23.0	0.22
950128	0400	0.32	0.093	0.093	10.72	10.72	-22.0	-6.0	-4.6	40.0	34.0	24.3	0.23
950128	0700	0.29	0.083	0.093	11.98	10.72	-2.0	-8.0	-4.6	37.9	34.4	28.1	0.32
950128	1000	0.28	0.074	0.074	13.56	13.56	-18.0	-12.0	-5.4	34.7	34.1	24.2	0.24
950128	1300	0.29	0.074	0.074	13.56	13.56	-12.0	-12.0	-8.5	36.2	34.1	21.7	0.29
950128	1600	0.45	0.240	0.240	4.17	4.17	40.0	36.0	19.4	40.7	23.0	15.5	0.13
950128	1900	0.54	0.210	0.210	4.75	4.75	26.0	24.0	19.5	23.5	21.2	13.3	0.11
950128	2200	1.63	0.162	0.162	6.19	6.19	38.0	36.0	37.0	18.2	19.3	12.6	0.13

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950129	0100	2.24	0.142	0.142	7.04	7.04	22.0	22.0	31.9	22.6	22.2	16.4	0.16
950129	0400	2.09	0.132	0.142	7.56	7.04	16.0	20.0	30.4	27.0	24.0	18.6	0.16
950129	0700	1.84	0.142	0.142	7.04	7.04	26.0	22.0	29.7	27.6	23.0	17.6	0.16
950129	1000	1.58	0.132	0.142	7.56	7.04	12.0	12.0	28.2	32.4	22.3	21.3	0.18
950129	1300	1.56	0.142	0.142	7.04	7.04	12.0	20.0	25.2	29.0	21.6	15.6	0.15
950129	1600	1.70	0.142	0.142	7.04	7.04	22.0	20.0	29.9	29.2	22.8	19.1	0.18
950129	1900	1.64	0.142	0.142	7.04	7.04	18.0	18.0	26.0	30.5	25.5	21.1	0.15
950129	2200	1.50	0.152	0.142	6.59	7.04	24.0	20.0	25.8	29.0	25.9	20.7	0.12
950130	0100	1.45	0.152	0.142	6.59	7.04	20.0	16.0	17.3	30.7	27.1	22.9	0.10
950130	0400	1.57	0.142	0.142	7.04	7.04	12.0	8.0	16.8	32.8	29.7	28.4	0.10
950130	0700	1.63	0.132	0.132	7.56	7.56	8.0	8.0	15.4	27.1	24.8	15.2	0.10
950130	1000	1.57	0.132	0.132	7.56	7.56	8.0	6.0	15.9	27.2	24.4	17.2	0.11
950130	1300	1.52	0.132	0.132	7.56	7.56	8.0	8.0	15.1	28.5	24.2	23.6	0.10
950130	1600	1.52	0.142	0.123	7.04	8.16	8.0	8.0	19.8	31.8	22.4	25.4	0.14
950130	1900	1.79	0.123	0.123	8.16	8.16	8.0	14.0	24.6	29.7	18.8	16.2	0.16
950130	2200	1.87	0.123	0.123	8.16	8.16	12.0	16.0	23.6	27.3	18.9	16.8	0.14
950131	0100	1.77	0.123	0.123	8.16	8.16	12.0	12.0	21.2	23.2	19.5	15.6	0.11
950131	0400	1.58	0.123	0.113	8.16	8.87	12.0	12.0	19.3	23.7	19.6	16.2	0.13
950131	0700	1.38	0.113	0.113	8.87	8.87	14.0	14.0	17.7	25.1	20.4	18.4	0.17
950131	1000	1.36	0.093	0.093	10.72	10.72	0.0	12.0	13.4	24.7	20.1	19.8	0.14
950131	1300	1.31	0.093	0.093	10.72	10.72	0.0	10.0	10.9	24.2	21.1	19.7	0.10
950131	1600	1.08	0.093	0.093	10.72	10.72	4.0	10.0	12.9	23.8	21.8	22.7	0.15
950131	1900	0.95	0.123	0.093	8.16	10.72	8.0	10.0	11.5	22.5	21.1	22.7	0.24
950131	2200	0.72	0.093	0.093	10.72	10.72	6.0	6.0	6.0	23.9	23.0	19.5	0.23
950201	0100	0.59	0.103	0.103	9.71	9.71	-2.0	-2.0	-3.9	24.1	22.3	18.9	0.15
950201	0400	0.48	0.113	0.103	8.87	9.71	-4.0	-8.0	-12.1	23.9	22.7	22.2	0.28
950201	0700	0.39	0.103	0.103	9.71	9.71	-12.0	-12.0	-15.4	25.6	23.7	20.1	0.27
950201	1000	0.33	0.113	0.113	8.87	8.87	-8.0	-10.0	-13.2	28.0	22.8	17.4	0.29
950201	1300	0.32	0.113	0.103	8.87	9.71	-10.0	-10.0	-17.8	33.4	23.1	22.2	0.30
950201	1600	0.37	0.103	0.103	9.71	9.71	-20.0	-42.0	-23.9	35.2	18.6	19.9	0.33
950201	1900	0.37	0.240	0.093	4.17	10.72	-48.0	-40.0	-29.1	35.0	17.4	26.0	0.23
950201	2200	0.29	0.093	0.093	10.72	10.72	-10.0	-34.0	-25.9	33.0	20.7	26.5	0.29
950202	0100	0.28	0.074	0.074	13.56	13.56	-10.0	-30.0	-24.4	30.8	22.5	18.1	0.33
950202	0400	0.29	0.132	0.074	7.56	13.56	-40.0	-28.0	-29.1	32.9	24.7	25.5	0.31
950202	0700	0.30	0.152	0.083	6.59	11.98	-46.0	-44.0	-33.5	36.1	23.6	29.1	0.29
950202	1000	0.31	0.152	0.083	6.59	11.98	-48.0	-48.0	-26.7	40.3	28.0	27.6	0.30
950202	1300	0.32	0.093	0.083	10.72	11.98	-10.0	-38.0	-28.0	39.4	26.0	23.2	0.23
950202	1600	0.34	0.083	0.083	11.98	11.98	-6.0	-40.0	-19.4	47.7	36.2	24.3	0.25
950202	1900	0.47	0.269	0.259	3.72	3.86	32.0	32.0	9.0	44.3	30.1	24.4	0.19
950202	2200	0.57	0.230	0.230	4.35	4.35	14.0	14.0	14.8	30.3	25.2	19.7	0.12
950203	0100	0.91	0.210	0.220	4.75	4.54	34.0	36.0	40.0	26.1	22.8	19.7	0.14
950203	0400	0.94	0.210	0.210	4.75	4.75	44.0	44.0	39.5	25.9	22.6	17.9	0.15
950203	0700	1.21	0.181	0.191	5.52	5.24	26.0	28.0	34.1	25.5	21.1	19.9	0.16
950203	1000	1.07	0.171	0.171	5.83	5.83	36.0	38.0	30.5	21.8	19.9	19.7	0.14
950203	1300	1.01	0.152	0.152	6.59	6.59	20.0	20.0	27.4	22.3	18.5	13.5	0.13
950203	1600	0.92	0.162	0.162	6.19	6.19	28.0	28.0	24.7	27.3	21.6	17.9	0.12
950203	1900	0.85	0.162	0.142	6.19	7.04	22.0	26.0	22.6	29.6	22.0	26.5	0.16
950203	2200	0.76	0.152	0.152	6.59	6.59	32.0	32.0	22.4	34.4	23.5	19.1	0.19
950204	0100	0.74	0.162	0.152	6.19	6.59	34.0	34.0	15.2	43.4	33.4	22.9	0.15
950204	0400	0.77	0.230	0.152	4.35	6.59	-54.0	-52.0	-29.1	57.5	35.9	38.6	0.16
950204	0700	1.04	0.142	0.142	7.04	7.04	-44.0	-44.0	-44.6	33.5	29.6	24.8	0.15
950204	1000	0.79	0.123	0.113	8.16	8.87	-44.0	-44.0	-39.1	39.1	35.4	28.0	0.21
950204	1300	0.69	0.308	0.103	3.25	9.71	46.0	46.0	-7.5	70.5	33.9	38.3	0.21
950204	1600	0.72	0.269	0.093	3.72	10.72	46.0	46.0	6.4	67.4	24.2	26.9	0.20

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950204	1900	0.68	0.259	0.093	3.86	10.72	50.0	50.0	19.1	67.6	22.1	27.7	0.24
950204	2200	0.66	0.318	0.093	3.15	10.72	62.0	54.0	27.3	58.1	17.8	34.5	0.28
950205	0100	0.73	0.201	0.083	4.98	11.98	50.0	50.0	32.0	38.7	13.6	30.2	0.27
950205	0400	0.65	0.201	0.083	4.98	11.98	50.0	52.0	27.0	50.7	16.1	33.3	0.16
950205	0700	0.51	0.191	0.083	5.24	11.98	52.0	54.0	7.6	65.9	25.9	32.2	0.23
950205	1000	0.41	0.074	0.083	13.56	11.98	2.0	10.0	0.8	51.9	35.0	34.4	0.25
950205	1300	0.50	0.250	0.083	4.01	11.98	62.0	64.0	19.2	75.9	27.5	35.5	0.25
950205	1600	0.55	0.250	0.083	4.01	11.98	62.0	62.0	34.0	65.7	22.6	30.2	0.21
950205	1900	0.63	0.210	0.220	4.75	4.54	58.0	60.0	45.6	46.2	18.5	9.9	0.19
950205	2200	0.81	0.191	0.240	5.24	4.17	54.0	56.0	51.3	25.1	15.2	11.9	0.19
950206	0100	0.94	0.162	0.162	6.19	6.19	42.0	54.0	48.3	23.0	12.1	6.3	0.20
950206	0400	1.20	0.152	0.152	6.59	6.59	40.0	40.0	41.9	21.7	11.6	7.4	0.16
950206	0700	1.19	0.162	0.152	6.19	6.59	40.0	40.0	40.2	25.4	13.0	10.6	0.16
950206	1000	0.93	0.132	0.132	7.56	7.56	22.0	38.0	38.1	28.9	15.3	10.8	0.18
950206	1300	0.64	0.123	0.142	8.16	7.04	14.0	40.0	35.9	39.6	17.2	11.6	0.20
950206	1600	0.43	0.123	0.074	8.16	13.56	12.0	12.0	33.9	53.4	19.0	22.4	0.22
950206	1900	0.30	0.074	0.074	13.56	13.56	6.0	8.0	20.6	51.9	28.4	25.0	0.29
950206	2200	0.22	0.074	0.074	13.56	13.56	8.0	10.0	14.5	39.3	42.0	26.9	0.45
950207	0100	0.21	0.074	0.074	13.56	13.56	4.0	-8.0	9.0	39.0	38.6	23.4	0.36
950207	0400	0.27	0.074	0.074	13.56	13.56	6.0	62.0	17.7	67.3	29.2	25.4	0.25
950207	0700	0.36	0.230	0.074	4.35	13.56	52.0	54.0	25.8	62.5	25.7	23.9	0.21
950207	1000	0.53	0.152	0.152	6.59	6.59	28.0	20.0	35.8	31.4	22.8	12.2	0.21
950207	1300	0.52	0.162	0.162	6.19	6.19	32.0	32.0	30.9	27.4	22.6	7.1	0.23
950207	1600	0.41	0.162	0.162	6.19	6.19	30.0	34.0	22.9	34.9	22.4	10.4	0.23
950207	1900	0.35	0.181	0.083	5.52	11.98	36.0	36.0	13.4	42.5	29.8	22.4	0.21
950207	2200	0.32	0.074	0.074	13.56	13.56	8.0	8.0	4.1	40.9	34.0	27.9	0.26
950208	0100	0.31	0.054	0.074	18.45	13.56	-14.0	8.0	-1.6	36.0	35.5	26.7	0.26
950208	0400	0.34	0.064	0.064	15.63	15.63	-10.0	4.0	6.4	33.2	31.6	23.5	0.28
950208	0700	0.63	0.259	0.259	3.86	3.86	60.0	60.0	40.5	43.5	14.9	9.0	0.35
950208	1000	1.23	0.201	0.191	4.98	5.24	46.0	46.0	44.7	14.1	13.0	8.9	0.30
950208	1300	1.35	0.162	0.171	6.19	5.83	40.0	40.0	39.8	17.6	13.4	9.4	0.25
950208	1600	1.31	0.142	0.142	7.04	7.04	22.0	32.0	35.6	23.6	14.6	7.1	0.24
950208	1900	1.19	0.171	0.162	5.83	6.19	34.0	32.0	35.3	22.8	15.3	10.9	0.23
950208	2200	1.37	0.162	0.162	6.19	6.19	34.0	36.0	36.9	22.0	14.3	10.5	0.24
950209	0100	1.38	0.142	0.142	7.04	7.04	26.0	32.0	34.5	19.3	13.7	10.1	0.20
950209	0400	1.15	0.142	0.152	7.04	6.59	24.0	36.0	33.8	20.1	14.5	11.5	0.18
950209	0700	0.97	0.142	0.142	7.04	7.04	22.0	26.0	28.3	22.0	14.4	8.1	0.19
950209	1000	0.84	0.142	0.152	7.04	6.59	26.0	28.0	27.6	29.3	16.2	11.3	0.18
950209	1300	0.66	0.152	0.152	6.59	6.59	22.0	22.0	21.1	39.8	20.2	14.9	0.22
950209	1600	0.51	0.162	0.074	6.19	13.56	24.0	-6.0	8.5	37.5	23.1	26.7	0.28
950209	1900	0.41	0.074	0.074	13.56	13.56	4.0	-6.0	-1.6	32.4	31.2	25.6	0.29
950209	2200	0.35	0.083	0.074	11.98	13.56	-10.0	-14.0	-15.0	33.6	29.2	30.9	0.30
950210	0100	0.29	0.074	0.074	13.56	13.56	6.0	-10.0	-11.9	34.0	28.9	31.7	0.27
950210	0400	0.27	0.074	0.074	13.56	13.56	-20.0	-22.0	-24.1	30.4	26.2	23.8	0.32
950210	0700	0.27	0.083	0.083	11.98	11.98	-2.0	-6.0	-19.4	35.2	26.1	28.1	0.27
950210	1300	0.29	0.083	0.083	11.98	11.98	-20.0	-20.0	-25.2	29.8	23.5	20.4	0.30
950210	1600	0.25	0.083	0.083	11.98	11.98	-22.0	-20.0	-24.5	36.8	22.5	27.0	0.23
950210	1900	0.24	0.083	0.083	11.98	11.98	2.0	-22.0	-25.7	39.2	20.4	25.8	0.29
950210	2200	0.22	0.142	0.083	7.04	11.98	-38.0	-38.0	-31.0	34.6	20.1	24.1	0.28
950211	0100	0.25	0.142	0.142	7.04	7.04	-40.0	-40.0	-34.0	32.4	18.0	6.5	0.22
950211	0400	0.27	0.132	0.123	7.56	8.16	-40.0	-40.0	-37.2	29.1	19.2	18.0	0.21
950211	0700	0.26	0.132	0.123	7.56	8.16	-40.0	-40.0	-36.0	33.4	27.5	18.0	0.21
950211	1000	0.26	0.142	0.132	7.04	7.56	-40.0	-40.0	-32.4	32.6	29.3	27.0	0.24

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950211	1300	0.30	0.142	0.123	7.04	8.16	-42.0	-42.0	-37.2	30.4	27.0	26.9	0.22
950211	1600	0.39	0.123	0.093	8.16	10.72	-40.0	-40.0	-37.3	28.7	27.7	22.2	0.25
950211	1900	0.41	0.093	0.093	10.72	10.72	-38.0	-42.0	-33.7	28.8	27.0	22.0	0.26
950211	2200	0.44	0.103	0.103	9.71	9.71	-18.0	-38.0	-28.7	26.3	28.8	21.0	0.26
950212	0100	0.39	0.123	0.083	8.16	11.98	-38.0	-38.0	-22.7	32.5	28.6	24.1	0.26
950212	0400	1.32	0.191	0.191	5.24	5.24	50.0	52.0	48.0	23.1	20.2	17.4	0.20
950212	0700	1.70	0.171	0.171	5.83	5.83	44.0	46.0	42.6	19.1	18.1	14.3	0.20
950212	1000	1.76	0.152	0.152	6.59	6.59	26.0	26.0	34.8	21.0	17.7	12.2	0.17
950212	1300	1.71	0.142	0.142	7.04	7.04	24.0	26.0	32.5	23.8	18.8	12.6	0.17
950212	1600	1.50	0.152	0.152	6.59	6.59	26.0	30.0	35.0	23.6	19.5	13.2	0.17
950212	1900	1.16	0.152	0.152	6.59	6.59	26.0	30.0	35.3	23.7	18.8	10.5	0.17
950212	2200	0.98	0.171	0.171	5.83	5.83	30.0	32.0	33.1	25.5	21.3	12.6	0.14
950213	0100	0.85	0.191	0.191	5.24	5.24	36.0	30.0	32.1	30.9	24.1	18.1	0.15
950213	0400	0.85	0.181	0.181	5.52	5.52	34.0	34.0	31.7	28.9	22.7	13.3	0.15
950213	0700	0.95	0.162	0.171	6.19	5.83	28.0	32.0	35.0	30.0	21.7	17.2	0.16
950213	1000	0.91	0.162	0.162	6.19	6.19	28.0	30.0	28.6	24.8	18.9	12.6	0.12
950213	1300	0.84	0.162	0.162	6.19	6.19	20.0	22.0	28.4	26.5	20.8	13.8	0.11
950213	1600	0.77	0.162	0.162	6.19	6.19	24.0	30.0	26.9	30.3	22.4	15.7	0.16
950213	1900	0.65	0.191	0.152	5.24	6.59	44.0	42.0	22.9	37.8	24.1	22.6	0.20
950213	2200	0.56	0.201	0.123	4.98	8.16	42.0	42.0	18.7	40.0	23.9	20.4	0.19
950214	0100	0.54	0.132	0.132	7.56	7.56	2.0	6.0	16.8	36.6	26.4	25.3	0.21
950214	0400	0.49	0.054	0.132	18.45	7.56	-10.0	2.0	10.4	36.3	28.6	32.0	0.20
950214	0700	0.44	0.064	0.054	15.63	18.45	-12.0	2.0	6.2	37.6	28.7	31.2	0.23
950214	1000	0.44	0.054	0.054	18.45	18.45	-8.0	-6.0	-3.3	36.0	27.3	27.3	0.29
950214	1300	0.45	0.054	0.054	18.45	18.45	-10.0	-8.0	-0.8	36.1	27.6	29.8	0.28
950214	1600	0.51	0.054	0.054	18.45	18.45	-10.0	-8.0	14.0	53.3	28.5	26.0	0.24
950214	1900	0.53	0.220	0.054	4.54	18.45	52.0	54.0	15.5	59.5	26.1	26.6	0.27
950214	2200	0.51	0.064	0.054	15.63	18.45	-10.0	52.0	14.6	55.7	24.2	24.4	0.27
950215	0100	0.48	0.054	0.064	18.45	15.63	-10.0	-10.0	10.5	52.7	26.6	24.8	0.22
950215	0400	0.68	0.054	0.259	18.45	3.86	-20.0	54.0	22.5	49.6	29.8	27.7	0.24
950215	0700	0.68	0.240	0.240	4.17	4.17	28.0	10.0	23.2	43.7	31.6	28.3	0.19
950215	1000	0.64	0.220	0.230	4.54	4.35	26.0	26.0	15.0	42.6	31.3	29.1	0.18
950215	1300	0.69	0.064	0.210	15.63	4.75	-8.0	-8.0	0.5	38.0	35.1	27.7	0.14
950215	1600	0.98	0.162	0.171	6.19	5.83	-42.0	-42.0	-18.6	42.4	40.6	30.3	0.13
950215	1900	1.05	0.142	0.142	7.04	7.04	-12.0	-36.0	-19.3	32.5	35.4	25.1	0.17
950215	2200	1.19	0.142	0.132	7.04	7.56	-40.0	-40.0	-38.9	32.4	33.5	28.3	0.16
950216	0100	1.16	0.132	0.132	7.56	7.56	-36.0	-38.0	-35.8	26.2	25.7	26.5	0.14
950216	0400	1.11	0.132	0.132	7.56	7.56	-40.0	-40.0	-40.1	21.9	20.9	19.3	0.16
950216	0700	1.00	0.132	0.123	7.56	8.16	-42.0	-42.0	-40.0	22.9	20.7	19.8	0.21
950216	1000	0.84	0.132	0.123	7.56	8.16	-42.0	-42.0	-36.3	22.9	20.3	20.1	0.19
950216	1300	0.81	0.123	0.123	8.16	8.16	-38.0	-40.0	-38.6	21.5	19.1	19.3	0.13
950216	1600	0.75	0.142	0.123	7.04	8.16	-42.0	-40.0	-41.4	24.5	21.6	22.0	0.18
950216	1900	0.73	0.123	0.123	8.16	8.16	-20.0	-42.0	-35.7	27.5	23.9	22.1	0.22
950216	2200	0.83	0.142	0.123	7.04	8.16	-46.0	50.0	0.1	78.9	21.8	21.0	0.18
950217	0100	1.01	0.210	0.210	4.75	4.75	44.0	44.0	21.1	57.0	22.4	16.7	0.13
950217	0400	1.18	0.191	0.181	5.24	5.52	38.0	36.0	22.9	31.7	24.0	16.3	0.14
950217	0700	1.39	0.171	0.181	5.83	5.52	20.0	14.0	27.5	27.9	22.9	17.4	0.13
950217	1000	1.17	0.162	0.162	6.19	6.19	14.0	14.0	19.2	26.5	21.0	10.4	0.12
950217	1300	1.05	0.162	0.162	6.19	6.19	8.0	10.0	15.6	27.5	20.5	12.4	0.10
950217	1600	1.10	0.181	0.171	5.52	5.83	18.0	6.0	17.3	29.3	22.7	16.8	0.10
950217	1900	1.21	0.162	0.162	6.19	6.19	10.0	10.0	16.7	30.5	23.5	16.7	0.11
950217	2200	1.15	0.171	0.171	5.83	5.83	18.0	16.0	16.8	29.8	22.6	13.0	0.12
950218	0100	1.08	0.171	0.132	5.83	7.56	14.0	8.0	20.6	36.1	25.7	26.4	0.13

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	χ
950218	0400	1.11	0.132	0.132	7.56	7.56	-2.0	0.0	12.9	37.7	26.2	25.2	0.11
950218	0700	1.18	0.132	0.132	7.56	7.56	-10.0	0.0	14.9	41.6	27.8	20.8	0.19
950218	1000	1.34	0.191	0.142	5.24	7.04	40.0	40.0	19.6	43.1	27.5	28.8	0.15
950218	1300	1.42	0.152	0.152	6.59	6.59	4.0	4.0	14.5	34.3	24.9	20.3	0.12
950218	1600	1.52	0.132	0.142	7.56	7.04	2.0	2.0	7.6	29.8	26.3	21.6	0.09
950218	1900	1.77	0.132	0.132	7.56	7.56	0.0	2.0	9.1	36.9	26.4	24.9	0.16
950218	2200	1.75	0.123	0.123	8.16	8.16	-4.0	-2.0	7.8	33.3	27.4	25.7	0.16
950219	0100	1.66	0.123	0.123	8.16	8.16	-2.0	-2.0	4.2	28.3	26.2	21.2	0.12
950219	0400	1.64	0.132	0.132	7.56	7.56	4.0	2.0	7.7	28.4	25.5	18.5	0.11
950219	0700	1.48	0.132	0.132	7.56	7.56	4.0	4.0	9.7	28.0	25.2	16.6	0.14
950219	1000	1.42	0.113	0.113	8.87	8.87	4.0	4.0	9.9	28.5	26.7	27.0	0.15
950219	1300	1.25	0.113	0.113	8.87	8.87	2.0	4.0	9.2	27.7	25.9	23.4	0.12
950219	1600	1.16	0.103	0.113	9.71	8.87	4.0	6.0	10.0	29.2	27.2	24.9	0.11
950219	1900	1.12	0.103	0.103	9.71	9.71	6.0	6.0	9.9	28.5	27.8	20.9	0.18
950219	2200	1.03	0.103	0.103	9.71	9.71	10.0	10.0	10.9	30.9	29.5	25.7	0.20
950220	0100	0.97	0.103	0.103	9.71	9.71	6.0	4.0	7.3	33.4	31.9	28.0	0.18
950220	0400	0.96	0.103	0.103	9.71	9.71	0.0	2.0	7.8	29.2	28.8	23.8	0.12
950220	0700	1.04	0.093	0.093	10.72	10.72	2.0	6.0	3.4	28.6	28.7	24.4	0.20
950220	1000	0.95	0.093	0.093	10.72	10.72	8.0	8.0	4.2	30.0	30.3	24.7	0.23
950220	1300	0.89	0.093	0.103	10.72	9.71	-2.0	-4.0	-4.0	26.2	25.8	23.1	0.17
950220	1600	0.86	0.093	0.113	10.72	8.87	8.0	6.0	1.2	28.9	28.3	27.8	0.13
950220	1900	0.81	0.113	0.103	8.87	9.71	-8.0	-14.0	-4.8	30.4	29.9	31.4	0.20
950220	2200	0.73	0.123	0.123	8.16	8.16	-2.0	-12.0	-1.0	30.6	30.6	24.2	0.21
950221	0100	0.68	0.103	0.103	9.71	9.71	2.0	-10.0	-4.5	29.2	29.4	29.1	0.26
950221	0400	0.67	0.103	0.103	9.71	9.71	-2.0	-8.0	-4.9	27.5	28.0	25.6	0.19
950221	0700	0.70	0.103	0.103	9.71	9.71	-6.0	-4.0	-1.6	26.6	26.5	27.1	0.21
950221	1300	1.00	0.279	0.093	3.59	10.72	54.0	54.0	31.8	48.2	19.3	22.7	0.33
950221	1600	1.11	0.230	0.220	4.35	4.54	48.0	48.0	33.9	34.6	19.1	15.0	0.22
950221	1900	1.24	0.171	0.181	5.83	5.52	20.0	20.0	28.2	30.0	19.9	18.7	0.18
950221	2200	1.25	0.162	0.171	6.19	5.83	20.0	20.0	29.6	25.2	17.3	14.2	0.22
950222	0100	1.30	0.152	0.162	6.59	6.19	20.0	28.0	32.3	25.8	15.3	13.6	0.22
950222	0400	1.27	0.142	0.162	7.04	6.19	16.0	16.0	30.5	26.2	15.5	15.6	0.18
950222	0700	1.19	0.162	0.162	6.19	6.19	24.0	38.0	31.3	26.9	16.1	14.4	0.18
950222	1000	1.20	0.181	0.162	5.52	6.19	34.0	34.0	28.0	28.2	16.6	14.6	0.20
950222	1300	1.10	0.152	0.123	6.59	8.16	18.0	16.0	22.7	28.5	18.3	15.2	0.20
950222	1600	1.00	0.113	0.113	8.87	8.87	6.0	16.0	20.6	26.2	19.0	16.5	0.17
950222	1900	0.95	0.103	0.103	9.71	9.71	10.0	14.0	18.8	24.3	19.9	18.8	0.15
950222	2200	0.94	0.103	0.103	9.71	9.71	2.0	4.0	6.6	24.0	22.7	17.4	0.21
950223	0100	0.81	0.093	0.093	10.72	10.72	6.0	8.0	5.3	25.8	25.0	21.3	0.24
950223	0400	0.70	0.103	0.103	9.71	9.71	2.0	6.0	0.9	27.8	25.5	25.4	0.25
950223	0700	0.68	0.103	0.093	9.71	10.72	-2.0	6.0	-0.1	30.1	24.5	24.7	0.18
950223	1000	0.64	0.093	0.103	10.72	9.71	0.0	4.0	-1.9	31.4	25.9	27.4	0.24
950223	1600	0.61	0.093	0.093	10.72	10.72	-4.0	-8.0	-17.8	42.2	23.7	28.3	0.22
950223	1900	0.53	0.103	0.093	9.71	10.72	-10.0	-10.0	-21.6	40.6	22.4	30.2	0.23
950223	2200	0.50	0.103	0.103	9.71	9.71	-12.0	-12.0	-20.4	34.9	21.6	25.2	0.30
950224	0100	0.46	0.103	0.103	9.71	9.71	-16.0	-36.0	-24.0	34.3	22.0	26.7	0.31
950224	0400	0.45	0.113	0.093	8.87	10.72	-38.0	-38.0	-26.8	36.6	21.5	32.0	0.27
950224	0700	0.41	0.093	0.103	10.72	9.71	-10.0	-38.0	-24.5	38.3	23.5	33.7	0.27
950224	1000	0.40	0.093	0.103	10.72	9.71	-12.0	-38.0	-24.5	37.5	29.4	34.3	0.26
950224	1300	0.53	0.113	0.103	8.87	9.71	-40.0	-40.0	8.7	70.5	32.8	35.4	0.20
950224	1600	0.59	0.123	0.103	8.16	9.71	-38.0	18.0	11.9	54.8	31.2	26.1	0.17
950224	1900	0.58	0.210	0.103	4.75	9.71	48.0	50.0	18.0	62.2	33.0	32.9	0.15
950224	2200	0.99	0.201	0.201	4.98	4.98	50.0	50.0	40.0	25.1	18.3	12.4	0.15

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950225	0100	1.23	0.171	0.171	5.83	5.83	30.0	32.0	36.4	21.9	17.8	9.5	0.17
950225	0400	1.11	0.162	0.162	6.19	6.19	34.0	36.0	41.3	25.8	20.3	12.2	0.18
950225	0700	1.14	0.142	0.171	7.04	5.83	26.0	34.0	37.9	24.9	19.5	16.2	0.16
950225	1000	1.05	0.152	0.152	6.59	6.59	22.0	24.0	33.2	24.3	21.1	12.1	0.12
950225	1300	0.86	0.171	0.171	5.83	5.83	32.0	32.0	29.2	28.7	24.9	16.2	0.13
950225	1600	0.65	0.171	0.171	5.83	5.83	30.0	30.0	23.8	31.7	26.0	12.7	0.15
950225	1900	0.50	0.162	0.181	6.19	5.52	26.0	10.0	15.7	37.6	29.7	26.6	0.17
950225	2200	0.43	0.152	0.132	6.59	7.56	8.0	8.0	7.6	33.9	30.1	25.7	0.17
950226	0100	0.39	0.132	0.132	7.56	7.56	6.0	6.0	-4.1	35.6	33.3	26.2	0.20
950226	0400	0.34	0.123	0.123	8.16	8.16	-34.0	-34.0	-19.5	38.2	35.8	33.3	0.18
950226	0700	0.32	0.132	0.132	7.56	7.56	-20.0	-16.0	-21.6	32.4	29.2	24.9	0.22
950226	1000	0.29	0.064	0.123	15.63	8.16	-8.0	-34.0	-21.4	30.2	26.8	26.1	0.21
950226	1300	0.29	0.113	0.113	8.87	8.87	-32.0	-34.0	-24.8	30.0	24.9	20.4	0.22
950226	1600	0.30	0.308	0.113	3.25	8.87	-66.0	-36.0	-35.7	37.9	23.7	26.3	0.25
950226	1900	0.28	0.123	0.113	8.16	8.87	-38.0	-38.0	-32.8	36.0	26.2	23.7	0.22
950226	2200	0.41	0.269	0.269	3.72	3.72	56.0	54.0	23.6	72.5	22.9	13.7	0.22
950227	0100	0.66	0.201	0.201	4.98	4.98	48.0	48.0	37.1	20.8	18.3	8.8	0.14
950227	0400	0.80	0.152	0.142	6.59	7.04	30.0	36.0	32.7	21.0	17.5	14.3	0.17
950227	0700	0.80	0.132	0.142	7.56	7.04	22.0	34.0	30.8	23.9	20.1	14.3	0.17
950227	1000	0.63	0.132	0.132	7.56	7.56	14.0	14.0	7.1	36.6	34.9	25.4	0.21
950227	1300	0.89	0.132	0.132	7.56	7.56	-6.0	-6.0	-10.4	23.1	30.5	7.1	0.34
950227	1600	0.87	0.123	0.132	8.16	7.56	14.0	18.0	17.9	33.4	33.6	22.3	0.16
950227	1900	0.80	0.132	0.132	7.56	7.56	16.0	16.0	17.8	38.6	39.3	17.3	0.18
950227	2200	0.78	0.132	0.132	7.56	7.56	16.0	16.0	10.4	36.5	38.8	17.9	0.12
950228	0100	0.76	0.132	0.132	7.56	7.56	8.0	10.0	-7.7	41.6	40.0	21.5	0.14
950228	0400	0.85	0.132	0.132	7.56	7.56	10.0	10.0	-25.7	55.0	40.0	33.7	0.19
950228	0700	0.91	0.162	0.152	6.19	6.59	-52.0	-48.0	-36.0	47.4	35.8	57.3	0.19
950228	1300	0.99	0.152	0.152	6.59	6.59	-44.0	-42.0	-38.3	34.6	27.5	17.0	0.15
950228	1600	1.07	0.142	0.132	7.04	7.56	-42.0	-42.0	-39.2	32.8	28.9	37.1	0.18
950228	1900	0.99	0.132	0.132	7.56	7.56	-42.0	-44.0	-36.9	34.5	29.4	32.2	0.20
950228	2200	0.90	0.142	0.132	7.04	7.56	-44.0	-44.0	-31.5	34.6	25.8	34.7	0.16
950301	0100	0.95	0.132	0.132	7.56	7.56	-40.0	-40.0	-32.5	29.3	21.7	19.1	0.13
950301	0400	1.03	0.123	0.123	8.16	8.16	-40.0	-42.0	-34.5	31.1	28.0	23.5	0.19
950301	0700	1.27	0.132	0.113	7.56	8.87	-42.0	50.0	10.7	75.3	28.5	27.3	0.16
950301	1000	1.42	0.181	0.181	5.52	5.52	38.0	42.0	26.1	49.6	22.1	10.9	0.19
950301	1300	1.95	0.162	0.162	6.19	6.19	24.0	36.0	26.0	24.4	19.5	14.3	0.16
950301	1600	2.25	0.152	0.152	6.59	6.59	22.0	24.0	27.2	26.3	22.1	15.5	0.18
950301	1900	2.40	0.142	0.142	7.04	7.04	20.0	22.0	30.3	23.8	21.2	13.3	0.20
950301	2200	2.18	0.132	0.132	7.56	7.56	16.0	18.0	24.6	27.9	22.7	22.1	0.18
950302	0100	2.11	0.123	0.123	8.16	8.16	12.0	14.0	22.5	27.7	23.6	19.4	0.16
950302	0400	2.28	0.123	0.113	8.16	8.87	12.0	12.0	22.6	27.3	22.2	16.9	0.17
950302	1000	2.60	0.113	0.132	8.87	7.56	10.0	18.0	26.2	28.9	22.8	18.2	0.19
950302	1300	2.42	0.113	0.113	8.87	8.87	6.0	10.0	20.2	29.0	23.2	16.1	0.20
950302	1600	2.15	0.113	0.113	8.87	8.87	12.0	12.0	17.0	27.6	23.7	19.6	0.15
950302	1900	1.95	0.113	0.113	8.87	8.87	10.0	14.0	18.9	28.3	25.2	20.6	0.16
950302	2200	1.74	0.113	0.113	8.87	8.87	12.0	14.0	18.9	28.8	24.6	17.8	0.16
950303	0100	1.66	0.113	0.113	8.87	8.87	14.0	12.0	16.0	28.4	25.4	21.5	0.13
950303	0400	1.76	0.093	0.093	10.72	10.72	-4.0	10.0	14.4	31.5	25.4	22.1	0.14
950303	0700	1.80	0.103	0.103	9.71	9.71	0.0	12.0	14.8	33.5	24.1	22.9	0.17
950303	1000	1.65	0.093	0.103	10.72	9.71	-4.0	12.0	18.6	34.3	24.4	23.3	0.18
950303	1300	1.60	0.093	0.093	10.72	10.72	4.0	10.0	14.2	28.7	23.3	22.3	0.13
950303	1600	1.53	0.093	0.103	10.72	9.71	0.0	12.0	16.7	30.0	24.3	23.4	0.15
950303	1900	1.52	0.103	0.103	9.71	9.71	12.0	12.0	20.2	32.7	25.0	28.6	0.20
950303	2200	1.51	0.191	0.093	5.24	10.72	24.0	12.0	18.7	34.8	22.6	25.7	0.19

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950304	0100	1.49	0.093	0.093	10.72	10.72	6.0	12.0	15.4	36.1	23.8	24.5	0.16
950304	0400	1.36	0.103	0.103	9.71	9.71	0.0	8.0	14.3	33.2	24.8	24.0	0.15
950304	0700	1.34	0.103	0.093	9.71	10.72	-4.0	8.0	11.2	32.6	25.5	24.3	0.16
950304	1000	1.34	0.093	0.093	10.72	10.72	6.0	6.0	12.7	31.5	24.5	25.7	0.18
950304	1300	1.38	0.103	0.103	9.71	9.71	6.0	10.0	12.5	24.3	21.8	20.2	0.14
950304	1600	1.43	0.123	0.093	8.16	10.72	10.0	10.0	13.4	23.8	20.7	23.1	0.15
950304	1900	1.58	0.093	0.093	10.72	10.72	0.0	12.0	12.3	23.7	20.5	21.2	0.18
950304	2200	1.66	0.123	0.093	8.16	10.72	10.0	10.0	14.4	23.3	19.9	24.3	0.17
950305	0100	1.74	0.093	0.093	10.72	10.72	4.0	4.0	11.1	21.9	20.4	16.3	0.13
950305	0400	1.92	0.093	0.093	10.72	10.72	10.0	10.0	13.8	24.0	23.1	21.9	0.12
950305	0700	1.76	0.103	0.093	9.71	10.72	14.0	12.0	12.4	25.9	24.6	24.2	0.15
950305	1000	1.69	0.083	0.083	11.98	11.98	-2.0	12.0	12.9	27.3	24.5	23.7	0.18
950305	1300	1.62	0.093	0.093	10.72	10.72	6.0	10.0	12.0	25.8	23.5	21.6	0.14
950305	1600	1.48	0.093	0.093	10.72	10.72	8.0	10.0	12.1	25.9	24.7	26.5	0.13
950305	1900	1.44	0.093	0.093	10.72	10.72	4.0	8.0	9.9	24.9	24.1	20.4	0.16
950305	2200	1.39	0.103	0.093	9.71	10.72	12.0	12.0	11.2	28.8	27.3	26.5	0.16
950306	0100	1.32	0.093	0.093	10.72	10.72	12.0	10.0	12.4	25.3	24.5	24.4	0.15
950306	0400	1.30	0.093	0.093	10.72	10.72	0.0	12.0	8.6	24.3	23.7	18.4	0.14
950306	0700	1.23	0.093	0.093	10.72	10.72	10.0	10.0	9.8	23.7	23.1	21.1	0.17
950306	1000	1.19	0.093	0.093	10.72	10.72	6.0	8.0	10.2	26.2	25.1	21.2	0.20
950306	1300	1.00	0.103	0.093	9.71	10.72	6.0	6.0	8.2	24.8	24.6	22.4	0.19
950306	1600	0.98	0.093	0.093	10.72	10.72	-2.0	8.0	4.7	25.0	25.8	21.3	0.15
950306	1900	0.97	0.093	0.093	10.72	10.72	6.0	8.0	8.4	27.4	28.7	21.9	0.20
950306	2200	0.89	0.093	0.093	10.72	10.72	10.0	10.0	9.5	28.5	29.6	25.0	0.22
950307	0100	0.81	0.093	0.093	10.72	10.72	-2.0	-2.0	4.4	26.4	27.5	21.6	0.18
950307	0400	0.79	0.093	0.103	10.72	9.71	2.0	4.0	3.5	25.9	27.6	24.6	0.14
950307	0700	0.78	0.103	0.103	9.71	9.71	2.0	4.0	1.4	28.7	30.3	24.2	0.14
950307	1600	0.68	0.093	0.093	10.72	10.72	4.0	6.0	2.2	30.1	30.3	21.8	0.17
950307	1900	0.66	0.103	0.103	9.71	9.71	0.0	6.0	-5.4	33.5	31.6	27.2	0.20
950307	2200	0.75	0.093	0.093	10.72	10.72	6.0	6.0	-12.2	43.9	25.6	23.9	0.20
950308	0100	0.82	0.162	0.093	6.19	10.72	-48.0	-48.0	-21.0	48.7	25.1	25.6	0.18
950308	0400	0.96	0.152	0.093	6.59	10.72	-44.0	-42.0	-27.3	36.8	26.0	24.8	0.15
950308	0700	0.98	0.142	0.093	7.04	10.72	-40.0	-40.0	-28.8	37.0	25.4	27.0	0.15
950308	1300	1.31	0.123	0.123	8.16	8.16	-38.0	-40.0	-39.8	28.8	18.6	17.1	0.28
950308	1600	1.33	0.123	0.123	8.16	8.16	-38.0	-40.0	-38.2	28.7	20.4	22.2	0.25
950308	1900	1.39	0.113	0.113	8.87	8.87	-38.0	-38.0	-38.7	26.1	20.9	28.1	0.23
950308	2200	1.43	0.113	0.103	8.87	9.71	-40.0	-40.0	-10.7	40.9	43.7	26.1	0.21
950309	0100	1.98	0.152	0.152	6.59	6.59	40.0	42.0	35.8	23.7	17.2	7.4	0.23
950309	0400	2.02	0.152	0.142	6.59	7.04	38.0	38.0	35.0	20.0	15.6	10.2	0.24
950309	0700	1.84	0.132	0.142	7.56	7.04	22.0	36.0	34.8	24.8	16.4	13.8	0.23
950309	1000	1.91	0.132	0.132	7.56	7.56	22.0	26.0	33.6	23.4	17.2	13.2	0.22
950309	1300	1.84	0.132	0.132	7.56	7.56	22.0	26.0	34.9	25.1	16.9	12.4	0.21
950309	1600	1.73	0.142	0.142	7.04	7.04	28.0	28.0	33.0	22.6	16.0	10.7	0.21
950309	1900	1.76	0.142	0.142	7.04	7.04	24.0	24.0	33.4	25.6	15.8	9.1	0.23
950309	2200	1.93	0.132	0.152	7.56	6.59	24.0	34.0	35.5	23.0	15.2	11.3	0.23
950310	0100	1.81	0.142	0.142	7.04	7.04	36.0	36.0	35.9	22.9	16.1	13.5	0.22
950310	0400	1.68	0.132	0.132	7.56	7.56	24.0	26.0	33.8	23.8	16.3	13.0	0.22
950310	0700	1.65	0.152	0.123	6.59	8.16	22.0	22.0	31.1	26.5	16.7	18.4	0.21
950310	1000	1.54	0.152	0.113	6.59	8.87	20.0	22.0	29.6	26.2	17.9	16.5	0.19
950310	1300	1.34	0.162	0.113	6.19	8.87	22.0	20.0	27.6	26.3	19.3	18.7	0.19
950310	1600	1.13	0.123	0.123	8.16	8.16	14.0	24.0	24.4	24.5	19.7	16.4	0.19
950310	1900	0.93	0.132	0.132	7.56	7.56	12.0	14.0	17.8	22.1	19.5	12.7	0.15
950310	2200	0.89	0.132	0.132	7.56	7.56	12.0	14.0	14.9	27.7	19.6	14.0	0.17

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950311	0100	0.81	0.142	0.142	7.04	7.04	10.0	12.0	15.2	31.2	20.8	14.3	0.20
950311	0400	0.69	0.152	0.113	6.59	8.87	16.0	14.0	10.4	30.5	20.5	19.6	0.22
950311	0700	0.66	0.132	0.103	7.56	9.71	8.0	10.0	5.7	27.9	19.9	19.2	0.24
950311	1000	0.65	0.152	0.103	6.59	9.71	12.0	10.0	5.0	28.2	22.9	23.5	0.27
950311	1300	0.66	0.113	0.113	8.87	8.87	-6.0	2.0	5.0	29.4	24.1	19.9	0.28
950311	1600	0.73	0.113	0.113	8.87	8.87	-4.0	-6.0	-10.6	32.2	23.2	20.8	0.32
950311	1900	0.65	0.113	0.064	8.87	15.63	-14.0	-10.0	-5.8	31.0	27.5	31.8	0.35
950311	2200	0.63	0.074	0.074	13.56	13.56	2.0	-4.0	-8.9	28.6	27.5	26.0	0.32
950312	0100	0.57	0.074	0.074	13.56	13.56	6.0	0.0	-11.9	30.7	29.8	29.8	0.29
950312	0400	0.55	0.074	0.074	13.56	13.56	8.0	0.0	-6.6	30.2	28.8	28.7	0.28
950312	0700	0.56	0.074	0.074	13.56	13.56	4.0	2.0	-8.0	29.3	28.0	26.5	0.32
950312	1000	0.56	0.074	0.074	13.56	13.56	4.0	-10.0	-11.0	29.1	26.9	25.8	0.28
950312	1300	0.57	0.074	0.074	13.56	13.56	4.0	2.0	-9.9	29.8	28.1	27.7	0.30
950312	1600	0.55	0.074	0.074	13.56	13.56	2.0	2.0	-8.7	29.7	28.4	28.9	0.30
950312	1900	0.54	0.074	0.074	13.56	13.56	-2.0	-10.0	-5.7	27.4	27.5	24.7	0.27
950312	2200	0.55	0.123	0.103	8.16	9.71	-16.0	-12.0	-8.0	28.6	27.9	27.5	0.26
950313	0100	0.57	0.113	0.113	8.87	8.87	-14.0	-12.0	-13.7	26.8	27.0	24.4	0.27
950313	0400	0.53	0.103	0.103	9.71	9.71	-12.0	-10.0	-13.3	29.8	29.3	24.7	0.31
950313	0700	0.51	0.103	0.103	9.71	9.71	-12.0	-10.0	-13.7	30.8	30.9	24.7	0.26
950313	1000	0.54	0.074	0.103	13.56	9.71	-12.0	-4.0	-7.7	29.5	30.0	29.3	0.25
950313	1300	0.57	0.074	0.113	13.56	8.87	-8.0	-8.0	-4.7	29.1	28.9	24.7	0.26
950313	1600	0.58	0.074	0.074	13.56	13.56	8.0	-10.0	-3.1	31.1	30.4	26.3	0.24
950313	1900	0.60	0.103	0.103	9.71	9.71	-6.0	-8.0	-2.7	30.6	30.1	25.8	0.20
950313	2200	0.60	0.113	0.113	8.87	8.87	-6.0	-4.0	1.4	30.6	32.5	24.9	0.20
950314	0100	0.63	0.123	0.123	8.16	8.16	0.0	-4.0	-8.9	29.1	32.0	23.4	0.21
950314	0400	0.64	0.132	0.113	7.56	8.87	-2.0	-6.0	-15.7	29.6	31.2	25.4	0.23
950314	0700	0.60	0.103	0.103	9.71	9.71	-8.0	-6.0	-13.9	32.1	30.2	20.5	0.22
950314	1000	0.60	0.103	0.103	9.71	9.71	-2.0	-10.0	-14.3	29.0	28.7	24.1	0.22
950314	1600	0.60	0.103	0.113	9.71	8.87	-20.0	0.0	-9.4	29.9	31.2	28.6	0.29
950314	1900	0.61	0.113	0.113	8.87	8.87	-26.0	-6.0	-12.2	30.5	31.2	29.4	0.24
950314	2200	0.62	0.113	0.113	8.87	8.87	4.0	-6.0	-2.3	27.5	27.5	29.4	0.23
950315	0100	0.68	0.113	0.113	8.87	8.87	0.0	-6.0	-0.2	28.0	26.0	26.5	0.35
950315	0400	0.76	0.064	0.064	15.63	15.63	-12.0	-8.0	1.4	38.1	26.0	24.5	0.34
950315	0700	0.92	0.074	0.074	13.56	13.56	-2.0	-2.0	6.3	33.9	25.9	22.2	0.28
950315	1300	1.12	0.083	0.083	11.98	11.98	-2.0	-2.0	4.8	29.5	25.5	25.5	0.20
950315	1600	1.20	0.083	0.083	11.98	11.98	-2.0	-6.0	2.1	28.3	25.6	26.4	0.23
950315	1900	1.16	0.064	0.083	15.63	11.98	-10.0	-6.0	-0.8	24.2	23.7	26.5	0.25
950315	2200	1.16	0.074	0.074	13.56	13.56	-4.0	-2.0	0.1	24.2	24.6	24.4	0.24
950316	0100	1.21	0.074	0.074	13.56	13.56	2.0	0.0	-0.2	25.0	25.2	24.6	0.22
950316	0400	1.29	0.083	0.074	11.98	13.56	4.0	2.0	1.8	27.4	27.3	25.6	0.32
950316	0700	1.22	0.074	0.074	13.56	13.56	8.0	0.0	-0.7	29.2	29.3	30.4	0.29
950316	1300	1.13	0.074	0.074	13.56	13.56	4.0	4.0	0.8	27.7	28.2	29.4	0.19
950316	1600	1.07	0.074	0.074	13.56	13.56	8.0	8.0	4.3	28.7	28.7	26.1	0.24
950316	1900	1.03	0.074	0.074	13.56	13.56	6.0	6.0	5.4	28.9	29.1	27.9	0.32
950316	2200	1.03	0.074	0.074	13.56	13.56	6.0	6.0	2.7	26.4	25.9	23.8	0.19
950317	0100	0.97	0.074	0.074	13.56	13.56	4.0	2.0	0.3	25.1	25.5	21.7	0.19
950317	0400	0.91	0.083	0.083	11.98	11.98	10.0	6.0	2.6	26.5	26.6	26.6	0.41
950317	0700	0.81	0.083	0.083	11.98	11.98	8.0	4.0	1.1	28.4	28.3	27.6	0.27
950317	1000	0.70	0.083	0.083	11.98	11.98	4.0	6.0	0.5	28.4	28.6	28.2	0.27
950317	1300	0.69	0.083	0.083	11.98	11.98	8.0	4.0	1.0	27.1	26.6	26.6	0.22
950317	1600	0.68	0.093	0.093	10.72	10.72	8.0	10.0	7.4	28.2	28.5	24.5	0.27
950317	1900	0.63	0.083	0.093	11.98	10.72	4.0	6.0	-2.9	31.1	29.5	29.7	0.41
950317	2200	0.58	0.093	0.093	10.72	10.72	2.0	2.0	-1.2	28.7	29.7	25.7	0.32

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950318	0100	0.54	0.093	0.093	10.72	10.72	4.0	4.0	2.6	28.1	29.8	24.7	0.21
950318	0400	1.23	0.250	0.240	4.01	4.17	52.0	34.0	32.8	31.1	21.9	17.9	0.20
950318	0700	1.77	0.181	0.171	5.52	5.83	44.0	46.0	35.7	26.0	20.3	15.6	0.20
950318	1000	1.87	0.152	0.152	6.59	6.59	22.0	18.0	32.5	27.5	18.4	12.6	0.19
950318	1300	1.57	0.152	0.152	6.59	6.59	20.0	20.0	27.6	25.7	20.6	13.9	0.17
950318	1600	1.44	0.142	0.142	7.04	7.04	16.0	18.0	26.1	26.3	22.7	14.6	0.16
950318	1900	1.15	0.132	0.142	7.56	7.04	16.0	16.0	23.5	27.1	24.6	16.6	0.18
950318	2200	1.01	0.142	0.142	7.04	7.04	16.0	18.0	19.2	30.1	24.7	18.1	0.18
950319	0100	1.01	0.142	0.142	7.04	7.04	12.0	12.0	11.5	26.3	22.8	16.8	0.13
950319	0400	1.09	0.152	0.152	6.59	6.59	14.0	12.0	7.8	25.1	22.5	13.2	0.12
950319	0700	1.01	0.171	0.152	5.83	6.59	14.0	10.0	5.2	25.9	23.6	19.1	0.18
950319	1000	0.98	0.103	0.103	9.71	9.71	-16.0	8.0	8.3	30.9	25.7	19.5	0.20
950319	1300	1.03	0.113	0.113	8.87	8.87	-16.0	8.0	8.2	29.8	26.1	20.0	0.13
950319	1600	1.09	0.113	0.113	8.87	8.87	-12.0	6.0	4.0	27.9	25.2	17.3	0.13
950319	1900	1.05	0.113	0.123	8.87	8.16	-4.0	6.0	6.8	27.8	26.3	21.0	0.18
950319	2200	1.06	0.113	0.103	8.87	9.71	-16.0	-2.0	0.5	26.9	25.6	17.9	0.21
950320	0100	1.06	0.103	0.113	9.71	8.87	-2.0	0.0	4.5	24.0	23.7	17.0	0.15
950320	0400	1.17	0.113	0.113	8.87	8.87	-8.0	4.0	3.7	24.1	24.4	18.1	0.12
950320	0700	1.15	0.123	0.113	8.16	8.87	-14.0	4.0	4.8	27.2	27.5	18.6	0.19
950320	1000	1.10	0.103	0.103	9.71	9.71	-16.0	6.0	6.7	31.0	33.5	23.1	0.20
950320	1300	1.01	0.103	0.103	9.71	9.71	2.0	2.0	4.9	30.6	33.0	22.5	0.18
950320	1600	1.02	0.113	0.113	8.87	8.87	-4.0	4.0	6.0	29.8	33.3	20.1	0.15
950320	1900	1.01	0.113	0.113	8.87	8.87	-2.0	2.0	0.4	31.9	35.0	21.4	0.22
950320	2200	0.95	0.103	0.103	9.71	9.71	0.0	4.0	-4.3	33.0	34.3	20.7	0.24
950321	0100	0.82	0.103	0.103	9.71	9.71	2.0	4.0	-10.2	31.7	31.7	20.3	0.23
950321	0400	0.88	0.113	0.103	8.87	9.71	-10.0	-6.0	-20.0	38.0	30.4	21.9	0.16
950321	0700	0.91	0.152	0.103	6.59	9.71	-42.0	-44.0	-22.8	41.1	25.3	20.2	0.20
950321	1300	0.79	0.132	0.093	7.56	10.72	-36.0	-12.0	-19.8	39.0	24.9	25.3	0.25
950321	1600	0.78	0.093	0.093	10.72	10.72	0.0	-8.0	-13.8	31.9	24.7	21.7	0.21
950321	1900	0.81	0.074	0.093	13.56	10.72	-10.0	-10.0	-20.7	38.3	24.7	24.6	0.22
950321	2200	0.77	0.093	0.093	10.72	10.72	-6.0	-12.0	-21.9	35.7	22.6	21.0	0.30
950322	0100	0.67	0.074	0.083	13.56	11.98	-10.0	-12.0	-19.8	29.8	23.7	22.8	0.33
950322	0400	0.62	0.083	0.083	11.98	11.98	-8.0	-10.0	-17.9	26.6	24.7	21.1	0.26
950322	0700	0.59	0.093	0.093	10.72	10.72	0.0	-2.0	-11.3	28.5	26.6	23.3	0.25
950322	1000	0.51	0.083	0.093	11.98	10.72	-2.0	-8.0	-14.0	29.8	25.5	24.9	0.31
950322	1300	0.45	0.083	0.083	11.98	11.98	-4.0	-4.0	-13.2	33.5	27.7	21.1	0.28
950322	1600	0.46	0.074	0.074	13.56	13.56	-8.0	-6.0	-16.3	37.7	29.6	21.2	0.34
950322	1900	0.65	0.074	0.298	13.56	3.35	-6.0	12.0	5.9	48.7	36.2	36.2	0.19
950322	2200	0.57	0.132	0.074	7.56	13.56	-40.0	-38.0	-10.0	51.4	34.0	21.3	0.25
950323	0100	0.61	0.123	0.123	8.16	8.16	-38.0	-40.0	-16.0	44.4	37.4	23.4	0.19
950323	0400	0.73	0.171	0.181	5.83	5.52	8.0	6.0	9.4	32.0	31.0	22.3	0.16
950323	0700	0.82	0.171	0.171	5.83	5.83	18.0	16.0	14.4	25.3	24.9	12.3	0.15
950323	1000	0.92	0.152	0.152	6.59	6.59	18.0	18.0	14.3	30.6	24.5	13.8	0.16
950323	1300	0.85	0.171	0.171	5.83	5.83	20.0	20.0	14.4	43.5	27.2	25.7	0.19
950323	1600	0.67	0.181	0.113	5.52	8.87	18.0	-12.0	10.1	43.4	26.9	16.3	0.18
950323	1900	0.60	0.113	0.113	8.87	8.87	-38.0	-10.0	6.4	44.5	35.8	30.4	0.18
950323	2200	0.58	0.308	0.113	3.25	8.87	48.0	46.0	9.0	53.4	31.0	31.6	0.22
950324	0100	0.61	0.250	0.250	4.01	4.01	44.0	46.0	23.3	51.1	26.6	15.5	0.23
950324	0400	1.08	0.191	0.191	5.24	5.24	40.0	42.0	35.8	20.3	17.6	12.1	0.18
950324	0700	1.10	0.181	0.181	5.52	5.52	44.0	44.0	37.6	20.4	16.9	16.7	0.17
950324	1600	0.80	0.171	0.181	5.83	5.52	26.0	26.0	28.4	21.2	16.7	14.6	0.17
950324	1900	0.70	0.162	0.171	6.19	5.83	20.0	20.0	22.4	20.7	16.8	12.4	0.17
950324	2200	0.68	0.152	0.152	6.59	6.59	18.0	18.0	22.2	19.6	17.1	6.7	0.17

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950325	0100	0.60	0.162	0.162	6.19	6.19	16.0	18.0	23.5	23.6	18.3	17.9	0.20
950325	0400	1.00	0.230	0.240	4.35	4.17	42.0	38.0	32.7	18.1	15.8	13.1	0.23
950325	0700	1.18	0.171	0.171	5.83	5.83	36.0	32.0	33.3	21.0	16.9	14.9	0.18
950325	1000	1.39	0.152	0.152	6.59	6.59	22.0	26.0	30.3	21.0	15.6	14.1	0.20
950325	1300	1.24	0.152	0.152	6.59	6.59	24.0	22.0	27.3	18.9	16.8	11.2	0.21
950325	1600	1.05	0.142	0.142	7.04	7.04	18.0	22.0	27.3	18.6	16.0	11.9	0.19
950325	1900	0.87	0.152	0.162	6.59	6.19	20.0	20.0	23.5	18.3	16.9	12.9	0.16
950325	2200	0.71	0.152	0.152	6.59	6.59	18.0	18.0	20.6	18.0	16.1	11.9	0.18
950326	0100	0.60	0.142	0.152	7.04	6.59	16.0	18.0	22.2	22.0	18.8	16.4	0.19
950326	0400	0.57	0.142	0.142	7.04	7.04	16.0	16.0	24.5	26.0	17.5	10.8	0.19
950326	0700	0.54	0.142	0.142	7.04	7.04	16.0	16.0	18.9	26.2	17.6	13.7	0.19
950326	1000	0.78	0.152	0.142	6.59	7.04	16.0	16.0	17.4	16.1	15.0	11.5	0.17
950326	1300	0.87	0.162	0.152	6.19	6.59	14.0	14.0	17.3	18.3	18.6	9.6	0.18
950326	1600	0.87	0.152	0.142	6.59	7.04	16.0	16.0	17.2	18.9	19.6	11.2	0.17
950326	1900	0.72	0.152	0.132	6.59	7.56	16.0	14.0	21.5	22.5	20.7	14.2	0.18
950326	2200	0.63	0.142	0.142	7.04	7.04	16.0	16.0	21.5	22.6	19.9	13.8	0.17
950327	0100	0.58	0.142	0.142	7.04	7.04	14.0	18.0	18.1	28.0	22.3	17.5	0.21
950327	0400	0.51	0.142	0.142	7.04	7.04	8.0	2.0	13.5	29.5	25.8	15.3	0.19
950327	0700	0.45	0.113	0.142	8.87	7.04	-6.0	8.0	12.1	27.3	27.2	21.9	0.22
950327	1000	0.43	0.113	0.113	8.87	8.87	-4.0	2.0	-0.6	26.8	26.1	17.5	0.20
950327	1300	0.80	0.259	0.259	3.86	3.86	50.0	50.0	31.3	41.2	27.8	28.0	0.15
950327	1600	0.91	0.220	0.220	4.54	4.54	46.0	50.0	39.1	37.7	29.1	24.6	0.14
950327	1900	0.78	0.210	0.210	4.75	4.75	48.0	48.0	34.9	39.6	28.0	21.9	0.14
950327	2200	0.75	0.171	0.201	5.83	4.98	2.0	2.0	19.1	31.7	26.8	28.7	0.13
950328	0100	0.84	0.171	0.181	5.83	5.52	4.0	4.0	15.8	29.4	26.3	20.2	0.14
950328	0400	0.86	0.171	0.181	5.83	5.52	4.0	4.0	10.7	29.3	26.6	19.3	0.14
950328	0700	0.76	0.171	0.171	5.83	5.83	2.0	2.0	8.5	29.7	28.0	19.8	0.16
950328	1000	0.69	0.162	0.162	6.19	6.19	0.0	2.0	11.5	27.5	26.9	19.2	0.13
950328	1300	0.74	0.171	0.162	5.83	6.19	2.0	6.0	12.7	27.3	27.1	20.3	0.16
950328	1900	0.82	0.103	0.103	9.71	9.71	8.0	6.0	14.2	28.7	26.3	16.9	0.18
950328	2200	0.81	0.132	0.113	7.56	8.87	8.0	8.0	10.5	26.0	24.5	20.0	0.16
950329	0100	0.82	0.113	0.132	8.87	7.56	-12.0	2.0	6.2	28.1	26.0	25.4	0.18
950329	0400	0.87	0.113	0.113	8.87	8.87	0.0	8.0	5.5	26.3	26.3	21.6	0.23
950329	0700	0.90	0.113	0.113	8.87	8.87	4.0	6.0	4.0	25.3	25.0	26.1	0.22
950329	1000	0.90	0.103	0.103	9.71	9.71	-4.0	2.0	3.6	24.9	23.8	23.1	0.17
950329	1300	0.96	0.103	0.103	9.71	9.71	-16.0	8.0	2.0	26.9	26.2	26.7	0.16
950329	1600	0.99	0.113	0.113	8.87	8.87	2.0	4.0	5.9	27.4	27.3	24.7	0.20
950329	1900	1.01	0.093	0.093	10.72	10.72	2.0	2.0	4.3	25.8	25.9	26.7	0.18
950329	2200	0.96	0.103	0.093	9.71	10.72	2.0	2.0	4.6	26.2	26.4	25.9	0.15
950330	0100	0.99	0.093	0.093	10.72	10.72	-2.0	2.0	2.1	26.1	26.8	24.3	0.17
950330	0400	1.00	0.103	0.093	9.71	10.72	-6.0	6.0	3.6	29.2	30.5	27.5	0.20
950330	0700	0.97	0.093	0.093	10.72	10.72	-6.0	-10.0	-7.0	28.6	30.0	24.1	0.22
950331	1300	0.90	0.162	0.093	6.19	10.72	2.0	4.0	9.0	25.8	24.9	26.8	0.15
950331	1600	0.87	0.103	0.103	9.71	9.71	-10.0	2.0	5.7	27.2	24.7	22.4	0.18
950331	1900	0.76	0.103	0.103	9.71	9.71	-10.0	6.0	6.2	31.2	27.0	23.3	0.21
950331	2200	0.64	0.103	0.103	9.71	9.71	-12.0	2.0	-2.1	31.6	28.9	22.7	0.21
950401	0100	0.61	0.113	0.103	8.87	9.71	6.0	4.0	1.8	29.6	27.2	26.4	0.17
950401	0400	0.76	0.318	0.093	3.15	10.72	50.0	2.0	21.4	40.0	23.1	21.2	0.24
950401	0700	1.18	0.201	0.210	4.98	4.75	48.0	48.0	35.7	30.4	21.9	17.4	0.19
950401	1000	0.96	0.191	0.201	5.24	4.98	24.0	44.0	26.4	33.0	23.0	20.7	0.16
950401	1300	0.77	0.210	0.201	4.75	4.98	44.0	46.0	26.3	39.3	24.0	20.4	0.16
950401	1600	0.66	0.220	0.103	4.54	9.71	44.0	44.0	19.6	43.7	26.2	25.8	0.18
950401	1900	0.63	0.210	0.103	4.75	9.71	42.0	44.0	22.0	46.4	29.0	26.8	0.17
950401	2200	0.61	0.210	0.103	4.75	9.71	44.0	42.0	23.2	40.9	28.0	24.2	0.19

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Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950402	0100	0.57	0.093	0.103	10.72	9.71	-6.0	26.0	13.6	41.9	30.7	27.7	0.20
950402	0400	0.57	0.250	0.103	4.01	9.71	4.0	-2.0	6.1	37.7	32.0	29.3	0.25
950402	0700	0.58	0.064	0.093	15.63	10.72	-12.0	4.0	8.0	34.5	29.2	21.9	0.22
950402	1000	0.62	0.054	0.064	18.45	15.63	-6.0	-6.0	11.6	39.2	29.0	25.6	0.28
950402	1300	0.68	0.064	0.064	15.63	15.63	-10.0	8.0	10.5	37.2	27.6	19.6	0.25
950402	1600	0.74	0.064	0.064	15.63	15.63	-10.0	-8.0	4.4	31.1	26.0	17.5	0.37
950402	1900	0.73	0.074	0.064	13.56	15.63	-6.0	4.0	2.5	28.0	27.2	31.8	0.37
950402	2200	0.70	0.064	0.064	15.63	15.63	-10.0	6.0	-0.2	26.0	25.9	22.5	0.45
950403	0100	0.73	0.064	0.064	15.63	15.63	-6.0	-8.0	-3.8	24.7	24.3	21.7	0.30
950403	0400	0.72	0.074	0.064	13.56	15.63	-10.0	-10.0	-3.3	23.4	23.5	21.7	0.42
950403	0700	0.78	0.064	0.064	15.63	15.63	4.0	4.0	6.4	28.1	25.8	24.8	0.52
950403	1000	0.71	0.064	0.064	15.63	15.63	4.0	4.0	6.2	27.7	26.1	26.1	0.35
950403	1300	0.67	0.064	0.064	15.63	15.63	-6.0	4.0	3.8	24.1	22.7	19.0	0.28
950403	1600	0.78	0.074	0.074	13.56	13.56	6.0	-62.0	-19.0	60.3	22.2	22.5	0.34
950403	1900	0.80	0.074	0.074	13.56	13.56	10.0	-56.0	-14.3	55.4	21.5	25.6	0.37
950403	2200	0.63	0.083	0.074	11.98	13.56	2.0	2.0	-4.3	31.3	26.0	29.2	0.33
950404	0100	0.59	0.074	0.074	13.56	13.56	2.0	-10.0	-6.6	26.1	23.2	19.3	0.25
950404	0400	0.58	0.074	0.074	13.56	13.56	6.0	4.0	-3.8	28.6	25.8	28.0	0.22
950404	0700	0.58	0.074	0.074	13.56	13.56	-8.0	-22.0	-14.7	27.2	22.6	22.5	0.31
950404	1000	0.52	0.074	0.074	13.56	13.56	-8.0	-10.0	-17.3	28.5	21.0	22.3	0.37
950404	1300	0.43	0.074	0.074	13.56	13.56	6.0	-14.0	-14.6	29.7	22.6	26.5	0.29
950404	1600	0.42	0.074	0.074	13.56	13.56	6.0	-12.0	-12.7	35.5	24.4	28.2	0.30
950404	1900	0.41	0.074	0.074	13.56	13.56	-8.0	-8.0	-26.0	35.8	20.9	19.3	0.31
950404	2200	0.52	0.132	0.074	7.56	13.56	-42.0	-42.0	6.0	90.3	23.4	28.8	0.29
950405	0100	1.35	0.181	0.201	5.52	4.98	46.0	46.0	43.7	17.4	17.3	14.4	0.20
950405	0400	1.73	0.171	0.171	5.83	5.83	44.0	44.0	37.4	28.6	21.9	20.9	0.17
950405	0700	1.68	0.142	0.142	7.04	7.04	20.0	20.0	33.7	27.5	23.3	14.3	0.19
950405	1300	1.18	0.132	0.132	7.56	7.56	16.0	16.0	29.4	26.2	23.3	10.0	0.15
950405	1600	0.98	0.123	0.123	8.16	8.16	14.0	14.0	21.0	26.9	24.1	11.0	0.14
950405	1900	0.84	0.132	0.132	7.56	7.56	16.0	16.0	17.6	32.5	29.1	26.5	0.16
950405	2200	0.73	0.132	0.132	7.56	7.56	18.0	18.0	15.3	33.8	29.7	16.8	0.18
950406	0100	0.64	0.132	0.132	7.56	7.56	12.0	14.0	8.8	35.5	32.5	17.8	0.22
950406	0400	0.59	0.152	0.152	6.59	6.59	20.0	6.0	3.5	33.7	31.0	20.1	0.17
950406	0700	0.60	0.162	0.162	6.19	6.19	24.0	0.0	4.3	36.2	32.3	26.6	0.17
950406	1000	0.61	0.142	0.162	7.04	6.19	2.0	4.0	10.7	41.2	38.2	32.2	0.19
950406	1300	0.54	0.152	0.142	6.59	7.04	8.0	6.0	6.0	40.4	40.8	23.8	0.23
950406	1600	0.52	0.142	0.142	7.04	7.04	-14.0	-14.0	-11.5	36.1	41.4	23.2	0.19
950406	1900	0.64	0.201	0.181	4.98	5.52	-50.0	-50.0	-33.3	46.3	34.9	40.7	0.18
950406	2200	0.82	0.162	0.162	6.19	6.19	-42.0	-44.0	-38.2	37.9	29.3	26.3	0.17
950407	0100	0.87	0.152	0.152	6.59	6.59	-38.0	-40.0	-34.9	33.2	26.5	23.0	0.16
950407	0400	0.82	0.152	0.152	6.59	6.59	-38.0	-38.0	-34.2	33.9	28.2	16.9	0.15
950407	0700	0.79	0.152	0.142	6.59	7.04	-40.0	-38.0	-31.7	33.5	30.2	30.1	0.14
950407	1000	0.80	0.142	0.142	7.04	7.04	-40.0	-38.0	-34.4	32.0	28.3	22.8	0.18
950407	1300	0.90	0.142	0.103	7.04	9.71	-40.0	-38.0	-34.1	29.1	28.0	32.5	0.20
950407	1600	0.94	0.123	0.103	8.16	9.71	-40.0	-40.0	-31.5	28.8	27.6	32.9	0.17
950407	1900	0.96	0.113	0.103	8.87	9.71	-38.0	-22.0	-30.9	29.6	27.3	33.4	0.17
950407	2200	1.06	0.103	0.103	9.71	9.71	-24.0	-24.0	-30.1	23.1	23.2	21.1	0.20
950408	0100	1.01	0.103	0.103	9.71	9.71	-22.0	-20.0	-26.2	23.7	23.7	18.8	0.19
950408	0400	0.94	0.113	0.113	8.87	8.87	-24.0	-22.0	-27.6	24.2	24.1	20.3	0.20
950408	0700	0.95	0.113	0.113	8.87	8.87	-18.0	-22.0	-21.6	23.2	23.0	19.6	0.16
950408	1000	0.98	0.113	0.113	8.87	8.87	-14.0	-20.0	-21.7	23.4	23.0	20.2	0.20
950408	1300	0.97	0.113	0.113	8.87	8.87	-12.0	-12.0	-24.1	26.6	24.3	20.5	0.17
950408	1600	0.92	0.113	0.113	8.87	8.87	-14.0	-16.0	-29.7	26.5	21.8	18.5	0.20
950408	1900	0.80	0.113	0.113	8.87	8.87	-12.0	-12.0	-26.4	29.3	20.7	19.0	0.20

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950408	2200	0.69	0.113	0.113	8.87	8.87	-10.0	-12.0	-25.5	27.6	20.2	19.1	0.22
950409	0100	0.60	0.113	0.113	8.87	8.87	-16.0	-16.0	-31.8	33.6	21.4	20.2	0.21
950409	0400	0.53	0.113	0.113	8.87	8.87	-20.0	-42.0	-35.9	31.6	18.0	18.8	0.21
950409	0700	0.50	0.123	0.123	8.16	8.16	-10.0	-40.0	-32.9	32.1	18.8	21.3	0.18
950409	1000	0.48	0.142	0.123	7.04	8.16	-42.0	-42.0	-32.8	31.8	19.2	26.6	0.19
950409	1300	0.54	0.230	0.132	4.35	7.56	-56.0	-56.0	-42.3	35.5	17.0	25.9	0.20
950409	1600	0.62	0.318	0.318	3.15	3.15	-66.0	-64.0	-47.9	31.6	13.1	7.0	0.33
950409	1900	0.59	0.318	0.318	3.15	3.15	-62.0	-62.0	-47.7	32.6	14.1	6.7	9.99
950409	2200	0.53	0.171	0.171	5.83	5.83	-42.0	-50.0	-39.1	27.8	15.9	11.1	0.25
950410	0100	0.57	0.162	0.171	6.19	5.83	-42.0	-42.0	-38.8	21.5	16.2	14.5	0.24
950410	0400	0.51	0.152	0.152	6.59	6.59	-40.0	-42.0	-35.4	25.2	18.1	14.3	0.22
950410	0700	0.90	0.201	0.230	4.98	4.35	46.0	50.0	30.4	62.4	21.4	17.0	0.22
950410	1000	1.72	0.152	0.152	6.59	6.59	36.0	38.0	40.6	19.0	19.2	14.7	0.17
950410	1300	1.84	0.152	0.152	6.59	6.59	28.0	30.0	34.1	20.4	18.3	11.9	0.20
950410	1600	1.67	0.132	0.132	7.56	7.56	20.0	20.0	34.4	27.2	21.8	13.3	0.22
950410	1900	1.78	0.171	0.162	5.83	6.19	28.0	22.0	30.6	23.7	21.6	17.0	0.17
950410	2200	1.61	0.123	0.123	8.16	8.16	14.0	16.0	28.7	26.8	23.0	12.8	0.18
950411	0100	1.41	0.123	0.162	8.16	6.19	14.0	14.0	29.0	30.2	25.3	20.6	0.18
950411	0400	1.21	0.123	0.123	8.16	8.16	12.0	16.0	26.4	29.3	26.2	17.6	0.17
950411	0700	1.13	0.142	0.123	7.04	8.16	12.0	14.0	20.9	28.6	25.0	21.3	0.15
950411	1000	1.13	0.132	0.132	7.56	7.56	10.0	10.0	16.6	25.4	24.4	14.2	0.14
950411	1300	1.17	0.132	0.132	7.56	7.56	10.0	10.0	17.9	26.0	25.3	16.8	0.16
950411	1600	1.12	0.123	0.123	8.16	8.16	12.0	10.0	19.5	29.4	26.2	18.1	0.16
950411	1900	1.03	0.123	0.123	8.16	8.16	8.0	8.0	13.2	27.4	26.1	18.8	0.17
950411	2200	1.10	0.113	0.113	8.87	8.87	4.0	6.0	11.7	25.2	25.2	21.0	0.13
950412	0100	1.12	0.142	0.132	7.04	7.56	10.0	6.0	11.1	26.1	25.6	21.7	0.16
950412	0400	1.07	0.142	0.142	7.04	7.04	12.0	10.0	13.9	29.0	29.0	18.9	0.16
950412	0700	0.95	0.113	0.132	8.87	7.56	0.0	6.0	10.9	33.5	34.6	24.7	0.17
950412	1000	0.90	0.113	0.123	8.87	8.16	2.0	4.0	-9.4	34.4	37.1	24.7	0.15
950412	1300	0.94	0.162	0.162	6.19	6.19	6.0	6.0	-16.6	41.9	33.1	28.6	0.26
950412	1600	0.98	0.103	0.162	9.71	6.19	2.0	-4.0	-25.7	41.3	33.3	36.1	0.19
950412	1900	0.97	0.162	0.152	6.19	6.59	-42.0	-8.0	-27.3	37.5	30.1	30.6	0.16
950412	2200	0.95	0.142	0.142	7.04	7.04	-16.0	-12.0	-26.9	34.0	26.8	23.6	0.11
950413	0100	1.03	0.152	0.152	6.59	6.59	-40.0	-40.0	-26.7	33.8	27.7	30.1	0.13
950413	0400	1.00	0.152	0.132	6.59	7.56	-40.0	-38.0	-27.8	33.5	28.6	27.4	0.16
950413	0700	0.87	0.152	0.132	6.59	7.56	-40.0	-40.0	-22.5	33.4	28.2	28.3	0.16
950413	1000	0.78	0.142	0.142	7.04	7.04	-36.0	-36.0	-26.0	33.9	28.6	30.0	0.12
950413	1300	0.77	0.142	0.132	7.04	7.56	-38.0	-38.0	-38.2	30.9	28.3	30.7	0.14
950413	1600	0.79	0.142	0.132	7.04	7.56	-42.0	-42.0	-30.9	37.3	29.6	31.3	0.18
950413	1900	0.67	0.142	0.132	7.04	7.56	-42.0	-42.0	-33.3	36.4	32.1	27.7	0.19
950413	2200	1.15	0.230	0.230	4.35	4.35	48.0	50.0	29.4	41.4	19.5	10.4	0.18
950414	0100	1.01	0.191	0.201	5.24	4.98	46.0	48.0	31.1	44.8	22.7	15.4	0.17
950414	0400	0.84	0.210	0.201	4.75	4.98	52.0	54.0	30.5	54.9	25.4	19.3	0.19
950414	0700	0.74	0.201	0.201	4.98	4.98	52.0	52.0	26.1	53.2	25.5	19.6	0.19
950414	1000	0.68	0.191	0.191	5.24	5.24	44.0	44.0	26.9	43.2	22.0	15.3	0.18
950414	1300	0.72	0.230	0.123	4.35	8.16	48.0	56.0	28.8	44.7	20.3	28.4	0.17
950414	1600	0.76	0.210	0.210	4.75	4.75	46.0	50.0	30.7	36.6	23.5	12.9	0.16
950414	1900	0.56	0.220	0.210	4.54	4.75	48.0	48.0	23.4	49.7	25.9	15.6	0.17
950414	2200	0.46	0.240	0.113	4.17	8.87	56.0	56.0	15.6	60.4	27.9	39.3	0.20
950415	0100	0.66	0.240	0.240	4.17	4.17	58.0	60.0	42.2	34.0	19.9	12.1	0.19
950415	0400	0.78	0.210	0.210	4.75	4.75	54.0	54.0	41.2	28.1	20.8	16.2	0.16
950415	0700	0.80	0.191	0.191	5.24	5.24	38.0	38.0	36.6	23.4	19.4	14.3	0.21
950415	1000	0.67	0.201	0.191	4.98	5.24	46.0	46.0	33.1	22.5	17.0	11.4	0.19

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950415	1300	0.54	0.191	0.201	5.24	4.98	34.0	36.0	27.2	30.0	18.2	12.3	0.17
950415	1600	0.53	0.191	0.181	5.24	5.52	38.0	38.0	29.0	30.8	22.6	16.1	0.19
950415	1900	0.40	0.201	0.201	4.98	4.98	46.0	46.0	20.2	53.7	29.8	14.6	0.22
950415	2200	0.33	0.064	0.054	15.63	18.45	-12.0	-12.0	-1.1	56.8	33.8	23.0	0.32
950416	0100	0.32	0.054	0.054	18.45	18.45	-12.0	-14.0	-11.1	41.5	36.4	31.6	0.39
950416	0400	0.39	0.064	0.064	15.63	15.63	-10.0	-10.0	-14.5	32.1	37.0	20.6	0.52
950416	0700	0.45	0.064	0.064	15.63	15.63	6.0	-4.0	-4.4	34.7	37.5	26.3	0.49
950416	1000	0.51	0.064	0.064	15.63	15.63	-6.0	-6.0	-10.4	25.5	29.6	14.9	0.42
950416	1300	0.52	0.064	0.064	15.63	15.63	-12.0	-12.0	-7.8	30.4	31.1	26.0	0.33
950416	1600	0.58	0.064	0.074	15.63	13.56	-12.0	-10.0	-14.9	25.4	24.4	20.5	0.39
950416	1900	0.54	0.074	0.074	13.56	13.56	4.0	6.0	-8.1	32.1	30.3	25.7	0.32
950416	2200	0.51	0.074	0.074	13.56	13.56	-6.0	-8.0	-11.6	26.9	27.4	22.7	0.47
950417	0100	0.52	0.074	0.074	13.56	13.56	0.0	2.0	-9.4	26.4	26.8	21.8	0.27
950417	0400	0.54	0.074	0.074	13.56	13.56	-8.0	-10.0	-13.8	28.1	25.2	18.7	0.33
950417	0700	0.54	0.083	0.083	11.98	11.98	4.0	4.0	-16.4	41.9	29.1	23.7	0.27
950417	1000	0.52	0.083	0.083	11.98	11.98	4.0	4.0	-24.2	44.9	29.2	22.9	0.39
950417	1300	0.52	0.083	0.083	11.98	11.98	12.0	-42.0	-8.5	45.5	30.1	25.1	0.27
950417	1600	0.70	0.298	0.083	3.35	11.98	54.0	54.0	22.5	61.9	26.6	23.2	0.27
950417	1900	1.02	0.201	0.201	4.98	4.98	26.0	16.0	19.7	33.1	30.5	23.2	0.14
950417	2200	0.84	0.191	0.201	5.24	4.98	24.0	10.0	21.3	36.4	33.5	28.1	0.16
950418	0100	0.69	0.191	0.083	5.24	11.98	30.0	10.0	18.8	35.9	33.5	22.6	0.15
950418	0400	0.67	0.191	0.191	5.24	5.24	16.0	16.0	12.6	38.5	35.7	25.2	0.15
950418	0700	0.78	0.191	0.210	5.24	4.75	-48.0	16.0	2.0	51.8	44.8	58.9	0.15
950418	1000	0.71	0.181	0.181	5.52	5.52	-28.0	-8.0	-7.2	48.9	42.7	32.0	0.17
950418	1300	0.60	0.201	0.191	4.98	5.24	-12.0	-10.0	-4.5	44.5	40.6	43.2	0.17
950418	1600	0.58	0.201	0.201	4.98	4.98	-10.0	-10.0	-10.2	39.8	36.0	28.7	0.15
950418	1900	0.58	0.201	0.201	4.98	4.98	-32.0	-18.0	-11.9	41.6	38.6	31.1	0.19
950418	2200	0.48	0.191	0.201	5.24	4.98	-30.0	12.0	-6.0	46.1	44.3	51.1	0.18
950419	0100	0.46	0.201	0.201	4.98	4.98	12.0	14.0	-9.7	50.5	49.9	53.7	0.18
950419	0400	0.47	0.210	0.201	4.75	4.98	20.0	-38.0	-17.1	48.9	45.5	47.5	0.16
950419	0700	0.70	0.191	0.191	5.24	5.24	-54.0	-40.0	-41.3	33.2	28.7	23.3	0.20
950419	1000	0.78	0.171	0.171	5.83	5.83	-50.0	-50.0	-46.3	28.7	25.5	19.8	0.19
950419	1300	0.72	0.171	0.171	5.83	5.83	-46.0	-46.0	-46.6	23.4	21.2	17.7	0.15
950419	1600	0.73	0.162	0.171	6.19	5.83	-44.0	-44.0	-42.4	24.7	21.3	24.6	0.15
950419	1900	0.74	0.171	0.162	5.83	6.19	-46.0	-46.0	-44.7	21.2	19.3	17.3	0.17
950419	2200	0.66	0.162	0.162	6.19	6.19	-46.0	-46.0	-44.4	23.0	19.2	10.2	0.18
950420	0100	0.58	0.162	0.162	6.19	6.19	-44.0	-44.0	-42.7	27.9	22.0	13.2	0.18
950420	0400	0.52	0.162	0.162	6.19	6.19	-46.0	-44.0	-41.7	26.8	21.9	13.0	0.14
950420	0700	0.51	0.162	0.162	6.19	6.19	-42.0	-42.0	-37.2	28.8	22.2	16.4	0.17
950420	1000	0.62	0.171	0.298	5.83	3.35	-48.0	-46.0	-1.3	79.6	27.2	22.8	0.17
950420	1300	0.57	0.298	0.298	3.35	3.35	62.0	-42.0	11.1	86.1	31.8	35.5	0.23
950420	1600	0.49	0.162	0.162	6.19	6.19	-42.0	-40.0	5.8	70.4	32.8	23.5	0.21
950420	1900	0.62	0.171	0.269	5.83	3.72	-44.0	4.0	0.5	48.4	35.7	43.2	0.17
950420	2200	0.67	0.171	0.171	5.83	5.83	16.0	16.0	12.7	39.7	40.3	43.1	0.16
950421	0100	0.60	0.162	0.171	6.19	5.83	16.0	12.0	15.3	44.2	44.6	34.7	0.15
950421	0400	0.57	0.171	0.171	5.83	5.83	16.0	14.0	8.9	39.7	40.5	18.8	0.14
950421	0700	0.55	0.171	0.181	5.83	5.52	10.0	6.0	5.0	36.7	38.4	35.8	0.17
950421	1000	0.53	0.191	0.191	5.24	5.24	4.0	6.0	1.3	36.2	37.8	39.9	0.17
950421	1300	0.50	0.201	0.083	4.98	11.98	-48.0	14.0	-24.6	49.3	43.6	29.2	0.19
950421	1600	0.44	0.083	0.083	11.98	11.98	-4.0	-52.0	-31.7	50.2	33.0	24.1	0.19
950421	1900	0.39	0.181	0.083	5.52	11.98	-50.0	-50.0	-34.4	47.3	30.4	28.9	0.28
950421	2200	0.33	0.083	0.083	11.98	11.98	-22.0	-42.0	-31.5	46.0	30.3	28.9	0.31
950422	0100	0.31	0.171	0.083	5.83	11.98	-46.0	-48.0	-33.6	44.3	26.8	27.6	0.35

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950422	0400	0.27	0.083	0.083	11.98	11.98	-2.0	-42.0	-31.5	44.6	29.2	29.7	0.26
950422	0700	0.28	0.093	0.093	10.72	10.72	8.0	-40.0	-28.1	44.0	33.9	28.2	0.26
950422	1000	0.29	0.093	0.093	10.72	10.72	-18.0	-18.0	-32.5	46.5	34.1	29.5	0.38
950422	1300	0.28	0.093	0.093	10.72	10.72	-2.0	-56.0	-27.3	47.4	30.8	27.5	0.30
950422	1600	0.25	0.093	0.093	10.72	10.72	-2.0	-18.0	-26.7	36.5	32.1	25.9	0.28
950422	1900	0.26	0.093	0.093	10.72	10.72	-6.0	-10.0	-24.9	35.1	36.0	25.4	0.28
950422	2200	0.43	0.298	0.298	3.35	3.35	56.0	58.0	26.8	64.1	24.0	8.4	0.29
950423	0100	1.23	0.210	0.210	4.75	4.75	38.0	48.0	43.1	17.5	17.6	12.7	0.20
950423	0400	1.49	0.191	0.191	5.24	5.24	46.0	46.0	44.6	21.7	20.4	13.2	0.20
950423	0700	1.65	0.142	0.152	7.04	6.59	16.0	14.0	32.3	27.4	21.5	15.0	0.15
950423	1000	1.45	0.152	0.162	6.59	6.19	16.0	14.0	32.9	29.0	23.5	17.8	0.15
950423	1300	1.12	0.162	0.171	6.19	5.83	26.0	24.0	32.5	28.6	24.5	20.1	0.16
950423	1600	0.92	0.162	0.171	6.19	5.83	24.0	26.0	28.7	32.9	23.8	21.0	0.14
950423	1900	0.77	0.132	0.152	7.56	6.59	6.0	4.0	19.1	33.1	24.3	18.9	0.12
950423	2200	0.74	0.142	0.142	7.04	7.04	8.0	12.0	17.3	33.4	32.7	17.2	0.13
950424	0100	0.78	0.171	0.152	5.83	6.59	26.0	10.0	19.8	37.3	35.0	21.5	0.13
950424	0400	1.14	0.279	0.230	3.59	4.35	54.0	54.0	40.2	45.1	30.8	17.9	0.25
950424	0700	1.57	0.171	0.162	5.83	6.19	40.0	40.0	35.5	40.9	38.8	58.9	0.12
950424	1000	1.62	0.142	0.142	7.04	7.04	18.0	20.0	28.3	34.2	37.6	22.2	0.11
950424	1300	1.51	0.132	0.132	7.56	7.56	14.0	14.0	27.6	32.9	36.9	23.4	0.16
950424	1600	1.35	0.123	0.123	8.16	8.16	10.0	14.0	25.4	32.6	29.3	19.8	0.20
950424	1900	1.35	0.132	0.132	7.56	7.56	12.0	30.0	30.3	32.0	19.1	15.1	0.22
950424	2200	1.26	0.142	0.142	7.04	7.04	14.0	16.0	26.4	27.0	19.8	17.2	0.16
950425	0100	1.14	0.152	0.152	6.59	6.59	16.0	18.0	21.7	24.0	18.9	12.4	0.18
950425	0400	1.05	0.142	0.142	7.04	7.04	20.0	18.0	19.3	22.0	19.2	14.5	0.19
950425	0700	0.92	0.152	0.132	6.59	7.56	18.0	18.0	19.7	24.8	19.5	18.3	0.18
950425	1000	0.85	0.132	0.132	7.56	7.56	10.0	12.0	14.9	22.2	19.1	13.6	0.14
950425	1300	0.84	0.152	0.152	6.59	6.59	12.0	12.0	11.9	22.5	21.6	13.5	0.19
950425	1600	0.78	0.142	0.142	7.04	7.04	10.0	10.0	8.0	26.3	23.3	17.5	0.19
950425	1900	0.77	0.113	0.113	8.87	8.87	-6.0	-6.0	3.9	23.8	22.3	14.7	0.20
950425	2200	0.71	0.113	0.123	8.87	8.16	0.0	0.0	3.3	23.0	23.8	21.4	0.15
950426	0100	0.72	0.123	0.123	8.16	8.16	6.0	4.0	0.2	21.6	22.9	18.4	0.19
950426	0400	0.63	0.113	0.113	8.87	8.87	0.0	2.0	-1.1	24.2	23.6	17.6	0.23
950426	0700	0.51	0.113	0.113	8.87	8.87	-4.0	6.0	1.8	27.1	27.4	21.3	0.25
950426	1000	0.49	0.123	0.113	8.16	8.87	8.0	6.0	4.8	26.0	27.8	17.7	0.19
950426	1300	0.51	0.123	0.123	8.16	8.16	10.0	8.0	4.7	26.4	28.2	21.3	0.19
950426	1600	0.53	0.123	0.123	8.16	8.16	10.0	8.0	6.0	27.9	29.2	23.7	0.20
950426	1900	0.53	0.113	0.113	8.87	8.87	-16.0	0.0	-1.6	28.0	27.1	24.2	0.22
950426	2200	0.52	0.113	0.113	8.87	8.87	4.0	6.0	6.6	29.0	26.9	19.1	0.17
950427	0100	0.50	0.113	0.113	8.87	8.87	2.0	0.0	4.5	27.2	27.5	21.2	0.20
950427	0400	0.49	0.113	0.113	8.87	8.87	12.0	12.0	1.0	30.2	31.0	20.7	0.23
950427	0700	0.46	0.113	0.113	8.87	8.87	-10.0	-6.0	-12.5	28.9	29.3	21.7	0.22
950427	1000	0.45	0.123	0.113	8.16	8.87	0.0	-2.0	-8.5	26.9	25.2	18.4	0.19
950427	1300	0.45	0.113	0.123	8.87	8.16	-6.0	-4.0	-11.7	27.1	23.9	18.6	0.21
950427	1600	0.40	0.113	0.123	8.87	8.16	-6.0	-4.0	-15.0	31.5	27.1	21.8	0.22
950427	1900	0.34	0.152	0.123	6.59	8.16	-38.0	-26.0	-17.5	33.6	29.5	26.4	0.23
950427	2200	0.30	0.123	0.103	8.16	9.71	2.0	-20.0	-18.5	32.4	28.3	29.4	0.25
950428	0100	0.47	0.162	0.162	6.19	6.19	-40.0	-42.0	-34.3	27.4	20.8	11.5	0.19
950428	0400	0.59	0.171	0.181	5.83	5.52	-42.0	-40.0	-37.4	26.3	22.0	23.5	0.20
950428	0700	0.51	0.181	0.181	5.52	5.52	-40.0	-40.0	-35.0	29.0	22.1	13.1	0.21
950428	1000	0.47	0.171	0.171	5.83	5.83	-42.0	-40.0	-33.1	30.8	23.5	15.4	0.17
950428	1300	0.46	0.171	0.142	5.83	7.04	-36.0	-36.0	-15.2	34.3	34.1	16.1	0.23
950428	1600	0.47	0.152	0.152	6.59	6.59	-38.0	-36.0	-10.2	36.5	33.6	15.9	0.23
950428	1900	0.45	0.162	0.152	6.19	6.59	-42.0	-40.0	-3.7	44.4	38.3	20.8	0.23

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	χ
950428	2200	0.40	0.152	0.074	6.59	13.56	-44.0	-42.0	-19.6	39.4	28.5	23.0	0.30
950429	0100	0.44	0.083	0.083	11.98	11.98	8.0	-40.0	-15.9	39.7	28.4	24.1	0.23
950429	0400	0.56	0.083	0.083	11.98	11.98	-12.0	8.0	-5.0	45.4	29.3	26.4	0.22
950429	0700	0.62	0.083	0.083	11.98	11.98	2.0	4.0	7.2	57.9	32.8	26.6	0.19
950429	1000	0.63	0.083	0.083	11.98	11.98	2.0	6.0	13.3	63.4	37.7	24.1	0.19
950429	1300	0.63	0.171	0.083	5.83	11.98	-42.0	-40.0	-3.5	45.1	35.2	25.3	0.15
950429	1600	0.68	0.132	0.132	7.56	7.56	-40.0	-40.0	-20.1	41.3	30.8	13.4	0.18
950429	1900	0.62	0.123	0.123	8.16	8.16	-40.0	-42.0	-21.4	41.7	31.9	25.2	0.18
950429	2200	0.58	0.123	0.123	8.16	8.16	-38.0	-40.0	-23.2	37.9	31.5	22.2	0.22
950430	0100	0.60	0.142	0.142	7.04	7.04	-42.0	-40.0	-25.8	36.8	29.6	20.1	0.19
950430	0400	0.61	0.132	0.132	7.56	7.56	-42.0	-40.0	-26.6	34.8	29.8	22.6	0.20
950430	0700	0.57	0.142	0.142	7.04	7.04	-42.0	-42.0	-27.9	36.4	30.9	24.7	0.26
950430	1000	0.53	0.064	0.064	15.63	15.63	-8.0	-8.0	-25.5	36.1	30.1	20.5	0.27
950430	1300	0.74	0.318	0.064	3.15	15.63	-64.0	-64.0	-39.3	51.3	17.8	20.3	0.29
950430	1600	0.80	0.308	0.064	3.25	15.63	-60.0	-60.0	-36.7	39.2	20.1	19.5	0.29
950430	1900	0.88	0.152	0.152	6.59	6.59	-44.0	-46.0	-35.7	33.6	27.3	28.2	0.20
950430	2200	0.82	0.152	0.142	6.59	7.04	-44.0	-44.0	-25.2	34.4	28.2	25.7	0.22
950501	0100	1.10	0.269	0.142	3.72	7.04	54.0	54.0	21.0	68.6	18.6	20.7	0.24
950501	0400	1.11	0.210	0.210	4.75	4.75	50.0	50.0	29.5	46.8	18.3	10.5	0.25
950501	0700	1.11	0.201	0.201	4.98	4.98	50.0	52.0	27.6	51.1	20.4	13.9	0.23
950501	1000	0.99	0.191	0.181	5.24	5.52	44.0	46.0	27.0	42.5	24.1	15.0	0.21
950501	1300	0.90	0.191	0.074	5.24	13.56	42.0	42.0	18.8	47.0	25.1	23.6	0.21
950501	1600	0.98	0.162	0.152	6.19	6.59	36.0	22.0	19.9	36.9	28.7	21.9	0.20
950501	1900	1.15	0.142	0.132	7.04	7.56	32.0	22.0	24.1	29.5	24.5	20.3	0.18
950501	2200	1.24	0.123	0.113	8.16	8.87	16.0	16.0	19.3	26.5	21.7	13.8	0.18
950502	0100	1.46	0.123	0.103	8.16	9.71	12.0	14.0	16.6	26.5	26.2	16.2	0.12
950502	0400	1.75	0.181	0.181	5.52	5.52	18.0	14.0	22.0	25.9	26.0	21.3	0.11
950502	0700	1.52	0.171	0.171	5.83	5.83	20.0	14.0	21.0	27.7	27.5	17.3	0.14
950502	1000	1.50	0.103	0.142	9.71	7.04	12.0	14.0	7.0	44.0	40.5	42.9	0.14
950502	1300	1.38	0.103	0.132	9.71	7.56	8.0	12.0	10.8	37.9	34.8	37.9	0.15
950502	1600	1.36	0.152	0.132	6.59	7.56	14.0	14.0	26.1	34.6	21.8	32.6	0.20
950502	1900	1.56	0.142	0.142	7.04	7.04	16.0	16.0	26.1	27.5	21.7	17.3	0.20
950502	2200	1.77	0.123	0.123	8.16	8.16	16.0	16.0	27.0	26.6	20.4	16.2	0.21
950503	0100	1.61	0.132	0.123	7.56	8.16	16.0	16.0	22.2	23.6	21.1	20.3	0.17
950503	0400	1.49	0.113	0.113	8.87	8.87	12.0	16.0	19.8	21.7	20.2	18.5	0.18
950503	0700	1.45	0.103	0.103	9.71	9.71	8.0	14.0	21.1	21.6	18.9	14.8	0.20
950503	1000	1.31	0.103	0.103	9.71	9.71	14.0	14.0	19.8	22.0	18.9	14.9	0.21
950503	1300	1.41	0.093	0.103	10.72	9.71	10.0	12.0	16.7	20.7	20.1	19.6	0.19
950503	1600	1.36	0.103	0.093	9.71	10.72	10.0	12.0	14.1	20.2	20.2	19.2	0.19
950503	1900	1.22	0.103	0.093	9.71	10.72	14.0	14.0	14.0	20.4	20.6	18.6	0.20
950503	2200	1.14	0.103	0.093	9.71	10.72	12.0	12.0	9.8	23.4	23.6	20.6	0.21
950504	0100	1.16	0.093	0.093	10.72	10.72	8.0	10.0	8.7	23.7	24.4	23.8	0.19
950504	0400	1.32	0.083	0.083	11.98	11.98	8.0	6.0	5.9	24.2	24.9	23.4	0.16
950504	0700	1.43	0.093	0.093	10.72	10.72	14.0	6.0	6.2	24.1	24.0	22.7	0.18
950504	1000	1.33	0.093	0.093	10.72	10.72	12.0	10.0	5.8	24.3	24.7	23.9	0.22
950504	1300	1.13	0.093	0.093	10.72	10.72	14.0	10.0	8.8	22.6	23.0	23.0	0.19
950504	1600	0.99	0.083	0.093	11.98	10.72	10.0	8.0	4.1	22.7	22.7	22.0	0.19
950504	1900	0.98	0.083	0.083	11.98	11.98	12.0	10.0	3.2	21.7	22.0	20.4	0.22
950504	2200	1.01	0.083	0.083	11.98	11.98	10.0	6.0	2.3	25.0	24.5	25.3	0.30
950505	0100	1.02	0.083	0.083	11.98	11.98	10.0	6.0	-1.9	25.7	24.3	22.7	0.27
950505	0400	1.23	0.074	0.083	13.56	11.98	-16.0	-12.0	-4.5	24.0	23.1	24.1	0.29
950505	0700	1.30	0.074	0.074	13.56	13.56	-18.0	-16.0	-10.7	24.5	25.2	19.5	0.27
950505	1000	1.08	0.074	0.074	13.56	13.56	-2.0	6.0	-8.4	29.4	27.9	22.7	0.25

Table A1 (Continued)

Date	Time EST	H_{m_0} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950505	1300	1.07	0.074	0.074	13.56	13.56	-6.0	2.0	-11.1	27.4	27.0	18.3	0.24
950505	1600	1.10	0.074	0.083	13.56	11.98	-4.0	0.0	-2.4	23.5	24.5	19.5	0.28
950505	1900	0.94	0.083	0.083	11.98	11.98	0.0	2.0	-3.3	26.2	25.9	20.5	0.32
950505	2200	0.86	0.083	0.083	11.98	11.98	4.0	2.0	-5.0	26.7	26.5	24.2	0.33
950506	0100	0.75	0.083	0.083	11.98	11.98	4.0	6.0	-2.2	26.0	26.8	23.4	0.44
950506	0400	0.74	0.083	0.083	11.98	11.98	8.0	6.0	8.6	24.4	22.9	23.5	0.31
950506	0700	0.83	0.083	0.083	11.98	11.98	8.0	6.0	12.4	29.8	19.4	22.2	0.27
950506	1000	0.78	0.083	0.083	11.98	11.98	8.0	6.0	9.8	32.6	23.3	28.1	0.42
950506	1300	0.75	0.083	0.083	11.98	11.98	10.0	6.0	9.5	31.1	24.1	26.4	0.48
950506	1600	0.73	0.074	0.074	13.56	13.56	-8.0	4.0	2.1	27.8	23.2	23.6	0.40
950506	1900	0.84	0.074	0.074	13.56	13.56	4.0	4.0	4.7	23.6	21.7	20.0	0.32
950506	2200	0.79	0.074	0.074	13.56	13.56	4.0	4.0	5.1	26.7	26.6	25.8	0.48
950507	0100	0.74	0.074	0.074	13.56	13.56	8.0	8.0	8.5	27.8	27.7	25.4	0.31
950507	0400	0.73	0.074	0.074	13.56	13.56	-20.0	6.0	-5.2	24.8	24.6	24.6	0.38
950507	0700	0.72	0.083	0.083	11.98	11.98	8.0	8.0	3.8	24.7	23.7	20.5	0.36
950507	1000	0.68	0.074	0.074	13.56	13.56	2.0	4.0	6.3	25.6	24.7	25.2	0.45
950507	1300	0.66	0.083	0.083	11.98	11.98	8.0	6.0	8.1	26.0	24.8	23.7	0.34
950507	1600	0.68	0.083	0.083	11.98	11.98	4.0	6.0	2.5	25.0	24.2	23.7	0.24
950507	1900	0.68	0.083	0.083	11.98	11.98	6.0	8.0	6.4	23.3	23.8	24.1	0.23
950507	2200	0.70	0.083	0.083	11.98	11.98	2.0	10.0	7.4	22.0	22.8	19.7	0.22
950508	0100	0.66	0.083	0.083	11.98	11.98	8.0	10.0	8.1	23.6	23.9	24.7	0.25
950508	0400	0.62	0.083	0.083	11.98	11.98	2.0	8.0	10.7	27.1	23.7	23.3	0.22
950508	0700	1.07	0.230	0.230	4.35	4.35	46.0	48.0	34.9	31.8	20.0	15.2	0.19
950508	1000	1.19	0.181	0.181	5.52	5.52	28.0	44.0	30.7	30.2	22.4	18.6	0.17
950508	1300	1.19	0.171	0.171	5.83	5.83	32.0	16.0	26.9	26.3	21.8	16.0	0.15
950508	1600	1.21	0.142	0.142	7.04	7.04	20.0	20.0	22.5	26.5	22.3	16.9	0.15
950508	1900	1.11	0.142	0.142	7.04	7.04	16.0	16.0	17.8	24.9	22.3	15.2	0.15
950508	2200	1.00	0.142	0.142	7.04	7.04	22.0	18.0	20.2	25.3	23.1	18.0	0.17
950509	0100	1.00	0.142	0.132	7.04	7.56	16.0	16.0	13.8	26.4	23.1	19.2	0.19
950509	0400	0.99	0.123	0.123	8.16	8.16	12.0	14.0	12.7	27.2	23.8	18.1	0.19
950509	0700	1.06	0.123	0.103	8.16	9.71	8.0	10.0	9.1	25.3	26.3	21.4	0.16
950509	1000	1.12	0.093	0.093	10.72	10.72	0.0	4.0	5.9	24.5	25.7	18.1	0.18
950509	1300	1.05	0.103	0.093	9.71	10.72	2.0	6.0	11.7	29.3	30.7	25.4	0.25
950509	1600	1.03	0.093	0.093	10.72	10.72	12.0	8.0	9.5	26.8	29.5	22.4	0.24
950509	1900	1.06	0.083	0.093	11.98	10.72	10.0	10.0	4.2	25.4	26.7	21.4	0.25
950509	2200	1.12	0.093	0.093	10.72	10.72	4.0	6.0	2.5	22.3	22.7	20.9	0.21
950510	0100	1.08	0.083	0.093	11.98	10.72	10.0	8.0	4.5	23.7	23.4	21.9	0.27
950510	0400	1.06	0.093	0.093	10.72	10.72	10.0	8.0	3.5	24.8	24.2	17.7	0.24
950510	0700	1.03	0.093	0.093	10.72	10.72	10.0	2.0	-3.6	28.4	24.1	23.4	0.18
950510	1000	0.95	0.093	0.093	10.72	10.72	10.0	6.0	-6.0	32.5	25.8	26.4	0.18
950510	1300	0.86	0.103	0.103	9.71	9.71	6.0	6.0	-4.1	30.3	27.6	18.0	0.22
950510	1600	0.76	0.103	0.103	9.71	9.71	10.0	10.0	-4.1	34.2	25.9	18.2	0.30
950510	1900	0.66	0.093	0.103	10.72	9.71	10.0	10.0	-6.5	33.2	25.0	21.9	0.24
950510	2200	0.64	0.093	0.093	10.72	10.72	8.0	6.0	-16.5	42.6	24.4	21.0	0.21
950511	0100	0.58	0.113	0.113	8.87	8.87	0.0	0.0	-11.4	41.8	30.5	27.4	0.24
950511	0400	0.60	0.113	0.113	8.87	8.87	2.0	4.0	-10.6	41.2	29.9	24.8	0.26
950511	0700	0.56	0.123	0.123	8.16	8.16	-40.0	-40.0	-20.5	46.5	34.6	48.4	0.20
950511	1000	0.58	0.132	0.093	7.56	10.72	-38.0	-38.0	-20.3	45.2	34.8	27.3	0.22
950511	1300	0.61	0.132	0.123	7.56	8.16	-40.0	-40.0	-25.9	48.6	33.1	32.9	9.99
950511	1600	0.58	0.132	0.093	7.56	10.72	-40.0	10.0	-23.9	52.3	34.2	22.2	0.23
950511	1900	0.56	0.113	0.103	8.87	9.71	2.0	10.0	-22.4	50.5	32.7	24.0	0.21
950511	2200	0.54	0.113	0.103	8.87	9.71	0.0	8.0	-10.8	42.7	36.6	25.2	0.20
950512	0100	0.57	0.103	0.103	9.71	9.71	10.0	10.0	-0.6	41.9	41.0	23.2	0.22

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950512	0400	0.59	0.103	0.113	9.71	8.87	6.0	8.0	-8.8	44.8	41.8	35.6	0.23
950512	0700	0.76	0.269	0.123	3.72	8.16	34.0	32.0	9.1	61.3	34.0	35.0	0.19
950512	1000	0.72	0.259	0.269	3.86	3.72	38.0	56.0	4.7	59.9	36.3	23.3	0.19
950512	1600	0.55	0.132	0.132	7.56	7.56	12.0	10.0	12.1	55.1	52.5	49.6	0.21
950512	1900	0.48	0.103	0.103	9.71	9.71	0.0	2.0	0.9	43.1	42.2	22.2	0.21
950512	2200	0.44	0.103	0.103	9.71	9.71	2.0	6.0	9.6	36.4	38.1	24.6	0.23
950513	0100	0.43	0.103	0.103	9.71	9.71	-6.0	8.0	-3.0	32.6	36.2	20.7	0.22
950513	0400	0.42	0.123	0.132	8.16	7.56	8.0	6.0	1.8	35.6	37.7	35.8	0.20
950513	0700	0.40	0.132	0.132	7.56	7.56	8.0	8.0	6.8	34.2	35.5	23.3	0.24
950513	1000	0.37	0.142	0.113	7.04	8.87	6.0	4.0	1.0	32.4	31.8	23.3	0.22
950513	1300	0.38	0.113	0.142	8.87	7.04	-14.0	8.0	-0.2	35.1	33.4	34.5	0.26
950513	1600	0.39	0.162	0.123	6.19	8.16	6.0	6.0	-0.4	35.6	34.9	31.5	0.22
950513	1900	0.36	0.142	0.123	7.04	8.16	6.0	6.0	-2.6	39.1	39.6	29.5	0.25
950513	2200	0.35	0.132	0.132	7.56	7.56	8.0	6.0	-10.3	36.2	36.7	27.4	0.25
950514	0100	0.36	0.093	0.142	10.72	7.04	-8.0	-12.0	-5.4	34.0	35.2	39.7	0.30
950514	0400	0.40	0.093	0.152	10.72	6.59	-14.0	-14.0	-14.4	38.4	35.8	40.3	0.23
950514	0700	0.72	0.279	0.279	3.59	3.59	-24.0	-22.0	-16.8	37.8	35.4	30.9	0.15
950514	1000	0.80	0.230	0.230	4.35	4.35	-8.0	-14.0	-19.7	42.3	42.6	33.1	0.14
950514	1300	0.77	0.191	0.240	5.24	4.17	46.0	-8.0	8.7	48.8	45.2	40.8	0.13
950514	1600	1.01	0.181	0.191	5.52	5.24	24.0	14.0	13.6	28.8	28.3	27.6	0.13
950514	1900	0.85	0.123	0.123	8.16	8.16	12.0	14.0	17.0	29.0	29.4	14.0	0.17
950514	2200	0.74	0.132	0.132	7.56	7.56	10.0	10.0	-3.5	41.5	40.2	14.5	0.18
950515	0100	0.87	0.162	0.162	6.19	6.19	-44.0	8.0	-12.0	43.6	39.2	46.4	0.13
950515	0400	0.91	0.152	0.162	6.59	6.19	10.0	10.0	-4.6	38.0	40.6	39.5	0.15
950515	0700	0.84	0.113	0.113	8.87	8.87	12.0	12.0	13.4	34.3	38.4	15.5	0.19
950515	1000	0.76	0.123	0.113	8.16	8.87	10.0	10.0	8.8	30.8	31.6	22.0	0.23
950515	1300	0.75	0.083	0.083	11.98	11.98	-18.0	8.0	3.4	27.3	26.6	23.9	0.20
950515	1600	0.79	0.103	0.103	9.71	9.71	-18.0	8.0	-6.2	27.6	26.1	24.2	0.24
950515	1900	0.83	0.083	0.083	11.98	11.98	4.0	2.0	-2.5	25.7	26.3	25.5	0.29
950515	2200	0.77	0.074	0.083	13.56	11.98	-12.0	-12.0	1.2	25.1	24.9	20.7	0.26
950516	0100	0.79	0.083	0.083	11.98	11.98	0.0	6.0	4.6	25.9	24.3	23.0	0.20
950516	0400	0.78	0.083	0.083	11.98	11.98	6.0	-14.0	0.5	26.6	25.3	24.5	0.26
950516	0700	0.73	0.093	0.083	10.72	11.98	8.0	8.0	1.2	27.5	27.8	28.3	0.24
950516	1000	0.72	0.083	0.083	11.98	11.98	-2.0	-14.0	-6.7	26.5	26.7	24.3	0.27
950516	1300	0.72	0.103	0.083	9.71	11.98	4.0	-14.0	-1.9	26.4	27.0	22.7	0.20
950516	1600	0.75	0.093	0.083	10.72	11.98	0.0	2.0	-8.1	26.6	26.7	23.8	0.20
950516	1900	0.70	0.103	0.103	9.71	9.71	0.0	0.0	-5.9	28.3	28.0	21.0	0.24
950516	2200	0.67	0.093	0.093	10.72	10.72	-4.0	-2.0	-4.2	27.5	27.8	19.5	0.25
950517	0100	0.65	0.103	0.093	9.71	10.72	-16.0	-16.0	-5.9	26.2	26.5	25.2	0.23
950517	0400	0.70	0.103	0.103	9.71	9.71	-4.0	-14.0	-11.5	22.7	24.0	20.6	0.21
950517	0700	0.67	0.113	0.093	8.87	10.72	-14.0	-14.0	-11.1	24.9	25.0	26.1	0.25
950517	1000	0.62	0.093	0.083	10.72	11.98	-16.0	-14.0	-19.1	30.0	22.8	23.5	0.27
950517	1300	0.62	0.083	0.093	11.98	10.72	-6.0	-6.0	-21.4	35.0	19.7	22.1	0.24
950517	1600	0.64	0.250	0.093	4.01	10.72	-54.0	-54.0	-33.4	43.9	14.6	20.7	0.32
950517	1900	0.62	0.318	0.318	3.15	3.15	-54.0	-54.0	-39.0	38.8	15.1	6.1	0.32
950517	2200	0.51	0.142	0.142	7.04	7.04	-42.0	-56.0	-37.8	39.8	16.3	12.3	0.25
950518	0100	0.48	0.142	0.093	7.04	10.72	-40.0	-58.0	-33.4	43.9	20.1	26.6	0.26
950518	0400	0.47	0.142	0.093	7.04	10.72	-40.0	-40.0	-31.2	39.5	22.2	23.2	0.23
950518	0700	0.50	0.142	0.142	7.04	7.04	-44.0	-44.0	-30.5	41.1	23.6	19.6	0.22
950518	1000	0.55	0.142	0.132	7.04	7.56	-44.0	-44.0	-38.3	36.7	22.1	19.3	0.22
950518	1300	0.54	0.132	0.132	7.56	7.56	-42.0	-44.0	-36.2	29.4	18.5	9.9	0.20
950518	1600	0.54	0.142	0.083	7.04	11.98	-42.0	-44.0	-37.5	32.1	17.2	29.8	0.22
950518	1900	0.59	0.142	0.142	7.04	7.04	-42.0	-44.0	-38.8	27.9	15.4	10.5	0.25
950518	2200	0.55	0.142	0.083	7.04	11.98	-44.0	-44.0	-39.3	28.1	14.3	29.9	0.26

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950519	0100	0.47	0.152	0.083	6.59	11.98	-46.0	-56.0	-34.1	44.8	16.7	27.2	0.27
950519	0400	0.43	0.142	0.083	7.04	11.98	-40.0	-54.0	-28.4	43.3	18.4	30.4	0.26
950519	0700	0.41	0.142	0.083	7.04	11.98	-42.0	-52.0	-29.6	45.1	20.9	35.8	0.25
950519	1000	0.38	0.152	0.083	6.59	11.98	-46.0	-44.0	-29.3	47.7	28.6	34.5	0.25
950519	1300	0.39	0.142	0.142	7.04	7.04	-44.0	-44.0	-36.3	40.6	24.8	5.7	0.22
950519	1600	0.37	0.142	0.142	7.04	7.04	-42.0	-42.0	-32.9	37.4	19.7	5.3	0.25
950519	1900	0.39	0.142	0.093	7.04	10.72	-44.0	-44.0	-34.8	44.7	22.9	30.5	0.23
950519	2200	0.65	0.142	0.220	7.04	4.54	-46.0	-46.0	25.8	91.7	33.6	27.8	0.21
950520	0100	0.84	0.201	0.201	4.98	4.98	50.0	48.0	39.3	29.1	26.7	12.4	0.15
950520	0400	0.58	0.210	0.210	4.75	4.75	54.0	54.0	34.5	56.3	31.0	14.0	0.20
950520	0700	0.52	0.142	0.083	7.04	11.98	-42.0	-42.0	33.0	62.7	41.0	33.9	0.24
950520	1000	0.53	0.191	0.210	5.24	4.75	42.0	12.0	28.0	52.2	44.7	33.4	0.21
950520	1300	0.47	0.083	0.083	11.98	11.98	8.0	10.0	21.9	51.2	43.3	30.9	0.24
950520	1600	0.45	0.083	0.083	11.98	11.98	-2.0	6.0	0.7	40.0	34.6	25.7	0.23
950520	1900	0.46	0.083	0.093	11.98	10.72	2.0	-2.0	-7.3	38.6	35.5	27.1	0.20
950520	2200	0.47	0.083	0.083	11.98	11.98	6.0	-12.0	-13.5	38.2	36.4	24.4	0.20
950521	0100	0.46	0.083	0.083	11.98	11.98	10.0	-18.0	-16.6	41.2	32.0	26.9	0.20
950521	0400	0.46	0.083	0.083	11.98	11.98	-2.0	-20.0	-21.6	39.1	29.7	32.2	0.25
950521	0700	0.47	0.083	0.083	11.98	11.98	-4.0	-12.0	-17.4	40.1	31.6	27.8	0.25
950521	1000	0.46	0.083	0.083	11.98	11.98	10.0	8.0	-8.4	38.3	32.5	27.5	0.25
950521	1300	0.44	0.083	0.083	11.98	11.98	14.0	6.0	-11.9	37.7	34.1	29.1	0.26
950521	1600	0.43	0.083	0.083	11.98	11.98	12.0	4.0	-9.4	36.9	34.3	29.7	0.30
950521	1900	0.45	0.083	0.083	11.98	11.98	12.0	-6.0	-6.8	34.6	29.2	29.0	0.28
950521	2200	0.48	0.083	0.083	11.98	11.98	10.0	6.0	-12.1	40.4	29.1	25.4	0.19
950522	0100	0.46	0.074	0.083	13.56	11.98	4.0	-42.0	-21.2	44.4	29.1	31.3	0.22
950522	0400	0.43	0.083	0.083	11.98	11.98	2.0	2.0	-21.6	45.0	28.6	27.7	0.28
950522	0700	0.41	0.083	0.083	11.98	11.98	-4.0	-54.0	-20.8	44.9	26.5	27.4	0.24
950522	1000	0.44	0.083	0.083	11.98	11.98	2.0	2.0	-20.4	42.2	27.4	25.1	0.23
950522	1300	0.45	0.083	0.083	11.98	11.98	0.0	-2.0	-20.2	39.0	29.3	24.0	0.20
950522	1600	0.43	0.083	0.083	11.98	11.98	8.0	-18.0	-17.8	41.1	31.7	29.6	0.26
950522	1900	0.43	0.083	0.083	11.98	11.98	6.0	4.0	-19.0	40.4	29.8	25.3	0.22
950522	2200	0.42	0.083	0.083	11.98	11.98	-4.0	-4.0	-25.0	40.9	27.5	24.5	0.22
950523	0100	0.39	0.083	0.083	11.98	11.98	2.0	4.0	-20.2	44.3	28.5	24.2	0.20
950523	0400	0.36	0.093	0.083	10.72	11.98	-6.0	-16.0	-18.5	40.1	31.8	31.1	0.27
950523	0700	0.38	0.093	0.093	10.72	10.72	4.0	0.0	-16.3	35.9	29.2	23.3	0.25
950523	1000	0.42	0.093	0.093	10.72	10.72	8.0	-48.0	-20.1	43.7	25.3	26.1	0.19
950523	1300	0.46	0.093	0.093	10.72	10.72	12.0	-48.0	-21.6	40.2	26.3	28.3	0.18
950523	1600	0.42	0.093	0.093	10.72	10.72	2.0	-18.0	-14.6	36.7	27.0	26.0	0.20
950523	1900	0.41	0.093	0.093	10.72	10.72	-2.0	-16.0	-19.4	32.1	28.2	28.2	0.23
950523	2200	0.43	0.093	0.093	10.72	10.72	-10.0	-32.0	-29.1	32.7	27.8	24.8	0.20
950524	0100	0.46	0.201	0.093	4.98	10.72	-46.0	-38.0	-22.9	35.6	28.7	27.8	0.18
950524	0400	0.48	0.191	0.171	5.24	5.83	-46.0	-46.0	-24.3	39.8	29.6	28.6	0.21
950524	0700	0.47	0.181	0.162	5.52	6.19	-42.0	-40.0	-37.2	41.0	32.5	28.5	0.18
950524	1000	0.52	0.181	0.181	5.52	5.52	-42.0	-38.0	-36.4	37.3	32.7	31.2	0.15
950524	1300	0.53	0.191	0.191	5.24	5.24	-42.0	-42.0	-38.0	34.6	27.3	22.1	0.19
950524	1600	0.54	0.318	0.191	3.15	5.24	-60.0	-42.0	-43.8	31.6	24.3	16.1	0.23
950524	1900	0.47	0.181	0.181	5.52	5.52	-42.0	-42.0	-41.7	31.7	24.6	16.9	0.22
950524	2200	0.40	0.171	0.171	5.83	5.83	-40.0	-40.0	-39.7	30.6	22.8	18.6	0.22
950525	0100	0.41	0.171	0.171	5.83	5.83	-40.0	-40.0	-40.3	29.6	23.0	16.4	0.20
950525	0400	0.41	0.142	0.171	7.04	5.83	-40.0	-42.0	-42.1	29.9	24.0	21.5	0.20
950525	0700	0.37	0.152	0.152	6.59	6.59	-40.0	-40.0	-39.0	27.6	23.5	13.7	0.19
950525	1000	0.38	0.162	0.162	6.19	6.19	-40.0	-40.0	-37.1	24.0	19.0	9.8	0.17
950525	1300	0.40	0.152	0.152	6.59	6.59	-38.0	-38.0	-38.8	20.4	17.6	12.1	0.20
950525	1600	0.40	0.162	0.162	6.19	6.19	-38.0	-38.0	-39.7	19.3	18.6	17.4	0.23

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950525	1900	0.36	0.152	0.152	6.59	6.59	-36.0	-38.0	-37.8	20.8	18.3	15.6	0.20
950525	2200	0.34	0.162	0.152	6.19	6.59	-42.0	-40.0	-40.0	20.4	19.6	15.4	0.18
950526	0100	0.40	0.152	0.152	6.59	6.59	-40.0	-40.0	-40.4	22.3	21.2	16.9	0.18
950526	0400	0.40	0.152	0.152	6.59	6.59	-42.0	-40.0	-40.0	22.1	21.5	19.0	0.19
950526	0700	0.36	0.152	0.152	6.59	6.59	-38.0	-40.0	-39.4	25.0	25.4	16.8	0.21
950526	1000	0.36	0.162	0.171	6.19	5.83	-40.0	-40.0	-37.5	23.8	24.3	18.2	0.18
950526	1300	0.40	0.162	0.162	6.19	6.19	-38.0	-40.0	-38.8	21.2	22.2	17.3	0.18
950526	1600	0.40	0.162	0.162	6.19	6.19	-40.0	-40.0	-24.9	44.4	31.0	24.3	0.17
950526	1900	0.61	0.250	0.250	4.01	4.01	20.0	48.0	16.0	60.2	33.5	31.8	0.13
950526	2200	0.79	0.220	0.210	4.54	4.75	32.0	34.0	21.7	41.3	27.9	23.1	0.10
950527	0100	1.14	0.191	0.191	5.24	5.24	42.0	34.0	31.9	35.3	30.5	20.3	0.15
950527	0400	1.08	0.171	0.171	5.83	5.83	42.0	44.0	33.9	28.8	24.9	18.4	0.17
950527	0700	0.92	0.191	0.171	5.24	5.83	42.0	42.0	28.1	27.1	22.4	18.3	0.17
950527	1000	0.85	0.181	0.171	5.52	5.83	40.0	42.0	27.0	32.0	23.4	20.2	0.22
950527	1300	1.09	0.171	0.181	5.83	5.52	24.0	40.0	32.2	24.8	23.9	20.4	0.15
950527	1600	1.33	0.162	0.171	6.19	5.83	16.0	16.0	26.4	27.2	25.8	19.7	0.14
950527	1900	1.22	0.162	0.162	6.19	6.19	18.0	14.0	26.6	28.7	27.5	18.5	0.13
950527	2200	1.27	0.152	0.152	6.59	6.59	14.0	14.0	21.8	31.2	29.6	16.1	0.11
950528	0100	1.26	0.162	0.162	6.19	6.19	12.0	12.0	16.8	32.8	30.7	22.4	0.10
950528	0400	1.32	0.162	0.181	6.19	5.52	16.0	12.0	12.6	33.5	32.2	30.6	0.11
950528	0700	1.43	0.113	0.113	8.87	8.87	6.0	8.0	10.7	30.0	30.1	19.4	0.11
950528	1000	1.33	0.103	0.103	9.71	9.71	2.0	4.0	11.4	27.4	27.9	16.1	0.12
950528	1300	1.25	0.103	0.103	9.71	9.71	0.0	10.0	7.4	26.8	30.1	16.9	0.12
950528	1600	1.30	0.113	0.113	8.87	8.87	4.0	6.0	0.0	32.2	34.9	18.3	0.16
950528	1900	1.21	0.103	0.103	9.71	9.71	0.0	2.0	-11.6	34.7	36.5	20.4	0.16
950528	2200	1.17	0.103	0.103	9.71	9.71	0.0	2.0	-5.2	30.1	31.8	16.5	0.13
950529	0100	1.22	0.103	0.103	9.71	9.71	4.0	4.0	-9.6	31.5	29.6	19.9	0.11
950529	0400	1.28	0.103	0.103	9.71	9.71	6.0	6.0	-9.8	33.1	30.0	24.4	0.12
950529	0700	1.24	0.093	0.093	10.72	10.72	-2.0	2.0	-10.4	31.4	29.9	21.1	0.15
950529	1000	1.16	0.093	0.093	10.72	10.72	-2.0	2.0	-10.3	29.7	26.8	21.0	0.15
950529	1300	1.13	0.093	0.093	10.72	10.72	-2.0	0.0	-17.2	33.4	25.4	18.3	0.16
950529	1600	1.09	0.083	0.083	11.98	11.98	8.0	0.0	-18.3	38.0	22.7	21.3	0.18
950529	1900	0.95	0.083	0.083	11.98	11.98	-6.0	-48.0	-24.2	40.0	23.0	21.2	0.19
950529	2200	0.85	0.083	0.083	11.98	11.98	2.0	-2.0	-21.3	35.6	22.0	21.9	0.17
950530	0100	0.76	0.083	0.083	11.98	11.98	2.0	0.0	-18.2	32.2	21.1	19.7	0.17
950530	0400	0.75	0.083	0.083	11.98	11.98	-2.0	-36.0	-19.7	36.2	23.0	21.7	0.18
950530	0700	0.68	0.083	0.083	11.98	11.98	2.0	0.0	-18.3	37.3	23.6	22.7	0.17
950530	1000	0.63	0.083	0.083	11.98	11.98	2.0	2.0	-21.5	38.0	26.0	22.1	0.21
950530	1300	0.59	0.083	0.083	11.98	11.98	0.0	2.0	-16.6	36.1	23.4	20.6	0.19
950530	1600	0.62	0.083	0.083	11.98	11.98	10.0	6.0	-15.0	37.7	25.7	25.6	0.19
950530	1900	0.60	0.093	0.083	10.72	11.98	0.0	-36.0	-19.7	38.4	23.8	31.3	0.22
950530	2200	0.60	0.074	0.083	13.56	11.98	-8.0	-22.0	-10.1	35.6	27.8	26.5	0.24
950531	0100	0.64	0.074	0.083	13.56	11.98	-12.0	-12.0	3.0	40.2	24.1	23.8	0.23
950531	0400	0.65	0.083	0.083	11.98	11.98	0.0	-36.0	-0.1	42.4	26.7	26.7	0.20
950531	0700	0.60	0.083	0.083	11.98	11.98	8.0	-38.0	-5.5	43.1	27.2	24.6	0.18
950531	1000	0.55	0.142	0.083	7.04	11.98	-36.0	-36.0	-13.4	42.8	29.8	21.3	0.23
950531	1600	0.59	0.132	0.083	7.56	11.98	-18.0	-20.0	-9.2	36.9	26.7	29.3	0.21
950531	1900	0.58	0.093	0.083	10.72	11.98	-6.0	-38.0	-14.7	35.2	25.3	24.2	0.21
950531	2200	0.53	0.083	0.083	11.98	11.98	0.0	-18.0	-16.4	32.7	26.3	21.6	0.25
950601	0100	0.51	0.083	0.083	11.98	11.98	-2.0	-20.0	-11.9	32.1	26.2	20.8	0.22
950601	0400	0.50	0.162	0.083	6.19	11.98	-36.0	-36.0	-19.2	34.2	28.4	23.5	0.23
950601	0700	0.49	0.083	0.083	11.98	11.98	-4.0	-34.0	-19.7	35.0	28.2	20.4	0.20
950601	1300	0.44	0.093	0.083	10.72	11.98	-12.0	-20.0	-24.3	33.9	28.5	25.0	0.25

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950601	1600	0.44	0.074	0.074	13.56	13.56	-4.0	-32.0	-22.9	34.2	27.2	19.0	0.20
950601	1900	0.49	0.152	0.083	6.59	11.98	-38.0	-38.0	-30.4	39.7	26.0	26.0	0.18
950601	2200	0.52	0.083	0.083	11.98	11.98	-2.0	-34.0	-28.5	37.2	25.1	22.1	0.17
950602	0100	0.51	0.083	0.074	11.98	13.56	8.0	-44.0	-26.0	38.9	26.2	24.2	0.22
950602	0400	0.57	0.171	0.083	5.83	11.98	-44.0	-44.0	-31.2	33.8	23.3	23.2	0.23
950602	0700	0.67	0.181	0.191	5.52	5.24	-44.0	-40.0	-35.1	27.6	21.7	14.2	0.18
950602	1000	0.58	0.162	0.162	6.19	6.19	-40.0	-40.0	-29.0	31.0	23.4	24.7	0.19
950602	1300	0.53	0.152	0.083	6.59	11.98	-38.0	-42.0	-30.5	33.6	28.3	26.3	0.19
950602	1600	0.53	0.152	0.162	6.59	6.19	-44.0	-44.0	-28.3	34.2	28.5	23.9	0.22
950602	1900	0.52	0.162	0.171	6.19	5.83	-44.0	-44.0	-34.7	30.0	27.3	25.3	0.17
950602	2200	0.50	0.171	0.083	5.83	11.98	-42.0	-42.0	-36.8	31.9	25.8	29.2	0.18
950603	0100	0.50	0.171	0.191	5.83	5.24	-44.0	-44.0	-38.7	33.1	23.9	15.3	0.20
950603	0400	0.50	0.181	0.191	5.52	5.24	-44.0	-44.0	-39.4	33.9	24.2	19.5	0.19
950603	0700	0.54	0.210	0.191	4.75	5.24	-48.0	-48.0	-39.9	32.8	25.2	22.9	0.19
950603	1000	0.50	0.201	0.201	4.98	4.98	-56.0	-54.0	-42.2	36.1	27.3	18.0	0.19
950603	1300	0.44	0.220	0.210	4.54	4.75	-58.0	-38.0	-38.8	41.8	27.8	15.9	0.22
950603	1600	0.43	0.074	0.074	13.56	13.56	-16.0	-38.0	-36.5	33.2	23.0	20.8	0.22
950603	1900	0.44	0.210	0.074	4.75	13.56	-50.0	-38.0	-37.0	32.2	23.0	31.6	0.25
950603	2200	0.43	0.171	0.074	5.83	13.56	-40.0	-40.0	-37.5	28.3	19.2	30.3	0.25
950604	0100	0.38	0.181	0.074	5.52	13.56	-44.0	-40.0	-36.1	33.5	22.1	29.4	0.26
950604	0400	0.35	0.074	0.074	13.56	13.56	-12.0	-40.0	-36.5	35.8	23.7	32.2	0.29
950604	0700	0.33	0.181	0.083	5.52	11.98	-50.0	-38.0	-28.2	39.5	32.0	29.8	0.35
950604	1000	0.32	0.074	0.083	13.56	11.98	-20.0	-40.0	-30.5	37.0	28.8	26.5	0.34
950604	1300	0.33	0.074	0.074	13.56	13.56	-10.0	-40.0	-30.5	35.7	25.7	28.1	0.29
950604	1600	0.34	0.083	0.083	11.98	11.98	-6.0	-38.0	-31.9	33.4	24.3	24.6	0.31
950604	1900	0.35	0.083	0.083	11.98	11.98	-8.0	-40.0	-33.3	33.6	24.5	27.8	0.31
950604	2200	0.35	0.152	0.083	6.59	11.98	-42.0	-40.0	-29.9	33.4	25.9	27.7	0.32
950605	0100	0.36	0.103	0.083	9.71	11.98	-30.0	-30.0	-31.7	30.5	29.1	30.1	0.33
950605	0400	0.37	0.113	0.083	8.87	11.98	-32.0	-40.0	-28.4	31.5	27.3	27.2	0.27
950605	0700	0.46	0.113	0.083	8.87	11.98	-28.0	-40.0	-25.1	37.5	31.7	26.3	0.24
950605	1000	0.55	0.103	0.318	9.71	3.15	-34.0	-34.0	-23.4	40.0	27.5	32.9	0.24
950605	1300	0.66	0.113	0.259	8.87	3.86	-26.0	-38.0	-10.8	45.9	33.5	33.0	0.17
950605	1600	0.64	0.123	0.250	8.16	4.01	-36.0	-38.0	-13.8	50.1	44.7	40.2	0.15
950605	1900	0.65	0.113	0.230	8.87	4.35	-32.0	-40.0	-16.5	51.2	42.7	62.8	0.16
950605	2200	0.62	0.113	0.220	8.87	4.54	-28.0	-42.0	-18.1	44.3	36.7	56.3	0.21
950606	0100	0.72	0.171	0.181	5.83	5.52	-50.0	-48.0	-52.1	32.9	32.1	13.6	0.19
950606	0400	1.09	0.162	0.162	6.19	6.19	-50.0	-50.0	-48.1	20.1	20.3	13.1	0.09
950606	0700	1.13	0.162	0.142	6.19	7.04	-46.0	-44.0	-34.6	26.7	26.4	13.7	0.09
950606	1000	1.16	0.142	0.142	7.04	7.04	-40.0	-40.0	-18.3	38.3	35.0	16.5	0.12
950606	1300	1.01	0.142	0.142	7.04	7.04	-42.0	-42.0	-24.2	37.0	36.2	21.0	0.14
950606	1600	1.15	0.132	0.152	7.56	6.59	-42.0	-42.0	-17.7	43.4	34.4	35.0	0.10
950606	1900	1.53	0.123	0.220	8.16	4.54	-38.0	-40.0	8.7	61.2	29.4	29.0	0.13
950606	2200	1.20	0.113	0.220	8.87	4.54	-30.0	46.0	5.6	61.9	23.8	25.1	0.15
950607	0100	0.94	0.201	0.191	4.98	5.24	46.0	46.0	20.2	54.3	25.7	14.1	0.20
950607	0400	0.93	0.191	0.171	5.24	5.83	42.0	44.0	23.8	27.2	18.6	9.7	0.14
950607	0700	0.91	0.152	0.152	6.59	6.59	22.0	24.0	17.8	22.2	18.7	10.0	0.11
950607	1000	0.87	0.162	0.162	6.19	6.19	22.0	28.0	15.5	26.9	21.2	11.1	0.11
950607	1300	0.72	0.171	0.171	5.83	5.83	32.0	30.0	7.3	66.6	30.0	12.7	0.13
950607	1600	0.66	0.171	0.152	5.83	6.59	28.0	30.0	12.7	66.9	43.9	65.0	0.17
950607	1900	0.62	0.123	0.162	8.16	6.19	-38.0	-38.0	-3.9	64.8	63.4	75.7	0.16
950607	2200	0.64	0.123	0.123	8.16	8.16	-36.0	-36.0	-17.0	63.3	52.9	18.9	0.13
950608	0100	0.70	0.142	0.142	7.04	7.04	14.0	16.0	-8.3	62.5	58.7	40.3	0.15
950608	0400	0.62	0.123	0.123	8.16	8.16	-42.0	16.0	-8.1	60.9	60.5	22.9	0.18

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950608	0700	0.54	0.132	0.123	7.56	8.16	-40.0	-40.0	-22.7	59.9	61.7	34.6	0.17
950608	1000	0.56	0.123	0.123	8.16	8.16	-40.0	-40.0	-23.2	53.8	58.5	35.1	0.17
950608	1300	0.55	0.132	0.132	7.56	7.56	-40.0	-38.0	-24.1	48.9	46.1	22.0	0.16
950608	1600	0.50	0.142	0.142	7.04	7.04	-42.0	-40.0	-36.2	44.7	40.4	28.7	0.19
950608	1900	0.48	0.142	0.142	7.04	7.04	-42.0	-40.0	-41.2	39.4	38.8	18.5	0.16
950608	2200	0.48	0.142	0.142	7.04	7.04	-38.0	-38.0	-34.5	38.5	39.9	28.0	0.17
950609	0100	0.48	0.142	0.142	7.04	7.04	-40.0	-40.0	-35.2	41.1	37.5	26.0	0.19
950609	0400	0.45	0.152	0.142	6.59	7.04	-44.0	-40.0	-41.7	42.3	40.3	33.4	0.20
950609	0700	0.50	0.142	0.318	7.04	3.15	-40.0	-38.0	-2.7	57.2	40.1	35.7	0.13
950609	1000	1.01	0.210	0.210	4.75	4.75	42.0	42.0	31.8	30.3	24.5	19.7	0.11
950609	1300	1.09	0.181	0.181	5.52	5.52	42.0	42.0	35.1	28.3	24.7	12.0	0.10
950609	1600	1.07	0.181	0.181	5.52	5.52	42.0	42.0	34.3	28.9	27.7	14.8	0.10
950609	1900	0.85	0.171	0.162	5.83	6.19	40.0	40.0	32.9	33.1	28.9	27.7	0.09
950609	2200	0.79	0.152	0.152	6.59	6.59	18.0	24.0	24.3	40.8	36.7	40.1	0.08
950610	0100	0.88	0.152	0.152	6.59	6.59	12.0	8.0	15.7	29.5	27.2	15.3	0.10
950610	0400	0.81	0.152	0.152	6.59	6.59	10.0	12.0	15.8	26.9	25.6	15.9	0.11
950610	0700	0.74	0.152	0.152	6.59	6.59	18.0	16.0	13.9	29.2	26.5	23.0	0.10
950610	1000	0.76	0.162	0.162	6.19	6.19	20.0	22.0	18.8	31.5	25.5	18.5	0.08
950610	1300	0.76	0.162	0.162	6.19	6.19	4.0	2.0	13.4	28.3	27.2	17.0	0.13
950610	1600	0.68	0.123	0.142	8.16	7.04	4.0	6.0	14.6	29.2	27.8	20.2	0.16
950610	1900	0.60	0.132	0.152	7.56	6.59	2.0	0.0	9.9	33.7	31.4	27.7	0.14
950610	2200	0.50	0.142	0.142	7.04	7.04	2.0	2.0	11.6	33.2	33.0	18.6	0.15
950611	0100	0.48	0.152	0.152	6.59	6.59	4.0	4.0	6.1	31.9	31.3	18.9	0.16
950611	0400	0.45	0.171	0.093	5.83	10.72	22.0	6.0	6.7	35.3	30.6	25.4	0.16
950611	0700	0.44	0.132	0.162	7.56	6.19	2.0	2.0	6.7	32.9	31.9	28.7	0.20
950611	1000	0.41	0.142	0.142	7.04	7.04	0.0	0.0	0.8	29.1	28.9	12.6	0.16
950611	1300	0.42	0.142	0.142	7.04	7.04	6.0	4.0	-0.2	30.1	28.7	21.0	0.16
950611	1600	0.47	0.279	0.152	3.59	6.59	-62.0	-60.0	-28.1	57.9	24.1	25.4	0.20
950611	1900	0.40	0.250	0.132	4.01	7.56	-56.0	-56.0	-26.7	50.3	23.9	26.8	0.25
950611	2200	0.34	0.250	0.142	4.01	7.04	-54.0	-54.0	-23.3	43.8	24.5	31.6	0.21
950612	0100	0.31	0.123	0.113	8.16	8.87	-32.0	-14.0	-20.7	35.5	29.1	37.4	0.24
950612	0400	0.31	0.103	0.103	9.71	9.71	-18.0	-14.0	-25.6	37.3	29.9	26.0	0.32
950612	0700	0.32	0.103	0.113	9.71	8.87	4.0	-28.0	-25.5	38.2	28.7	31.8	0.27
950612	1000	0.33	0.230	0.103	4.35	9.71	-50.0	-52.0	-28.3	41.3	25.2	30.6	0.23
950612	1300	0.37	0.230	0.103	4.35	9.71	-48.0	-50.0	-29.9	42.3	20.2	27.2	0.21
950612	1600	0.37	0.201	0.103	4.98	9.71	-48.0	-48.0	-29.5	42.1	22.0	29.8	0.30
950612	1900	0.40	0.181	0.103	5.52	9.71	-46.0	-48.0	-33.4	35.2	23.7	29.8	0.25
950612	2200	0.43	0.298	0.113	3.35	8.87	90.0	-42.0	0.7	63.6	51.1	28.8	0.28
950613	0100	0.76	0.259	0.230	3.86	4.35	56.0	54.0	45.7	50.8	30.3	21.3	0.16
950613	0400	1.09	0.220	0.220	4.54	4.54	56.0	54.0	45.9	26.6	22.9	13.7	0.12
950613	0700	1.35	0.171	0.181	5.83	5.52	44.0	50.0	41.8	19.4	19.8	11.6	0.20
950613	1000	1.29	0.162	0.162	6.19	6.19	36.0	46.0	40.7	19.2	17.1	9.1	0.22
950613	1300	1.33	0.162	0.162	6.19	6.19	36.0	38.0	36.8	17.2	16.6	13.5	0.19
950613	1600	1.48	0.152	0.152	6.59	6.59	34.0	34.0	39.6	20.0	17.5	13.1	0.23
950613	1900	1.49	0.142	0.142	7.04	7.04	34.0	32.0	39.4	23.2	18.5	13.1	0.23
950613	2200	1.15	0.171	0.142	5.83	7.04	36.0	34.0	35.6	19.5	17.3	16.7	0.18
950614	0100	1.05	0.132	0.142	7.56	7.04	20.0	20.0	29.4	22.8	20.7	15.2	0.13
950614	0400	1.00	0.142	0.142	7.04	7.04	28.0	26.0	24.7	21.2	22.1	16.0	0.12
950614	0700	0.83	0.142	0.142	7.04	7.04	20.0	22.0	25.2	23.5	22.8	17.3	0.15
950614	1300	0.70	0.152	0.152	6.59	6.59	30.0	26.0	22.8	24.5	20.8	14.8	0.11
950614	1600	0.69	0.162	0.152	6.19	6.59	20.0	22.0	15.2	28.1	24.7	22.4	0.11
950614	1900	0.69	0.171	0.152	5.83	6.59	22.0	24.0	18.6	28.9	26.9	25.2	0.12
950614	2200	0.62	0.152	0.152	6.59	6.59	20.0	24.0	22.0	30.8	26.2	17.8	0.14

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	χ
950615	0100	0.53	0.162	0.162	6.19	6.19	22.0	22.0	20.1	28.2	22.7	16.3	0.09
950615	0400	0.53	0.152	0.152	6.59	6.59	18.0	22.0	17.6	27.4	22.3	15.5	0.10
950615	0700	0.56	0.171	0.171	5.83	5.83	20.0	22.0	17.2	31.2	23.7	20.8	0.17
950615	1000	0.52	0.191	0.152	5.24	6.59	36.0	22.0	16.4	37.8	27.3	28.1	0.18
950615	1300	0.56	0.318	0.132	3.15	7.56	54.0	26.0	24.2	39.9	27.4	25.9	0.18
950615	1600	0.52	0.142	0.142	7.04	7.04	8.0	8.0	6.4	44.1	35.8	41.5	0.12
950615	1900	0.51	0.152	0.142	6.59	7.04	12.0	10.0	3.3	46.1	43.0	42.5	0.17
950615	2200	0.50	0.152	0.152	6.59	6.59	16.0	8.0	6.0	47.8	39.1	33.0	0.15
950616	0100	0.50	0.152	0.132	6.59	7.56	6.0	6.0	2.8	48.4	29.9	39.7	0.13
950616	0400	0.55	0.142	0.142	7.04	7.04	-40.0	-10.0	-3.0	43.3	28.8	26.8	0.10
950616	0700	0.62	0.142	0.142	7.04	7.04	-26.0	-26.0	-4.8	44.5	28.9	25.0	0.14
950616	1000	0.78	0.259	0.259	3.86	3.86	20.0	0.0	3.4	40.2	31.6	27.9	0.12
950616	1300	0.93	0.250	0.240	4.01	4.17	24.0	4.0	6.4	32.4	28.1	24.4	0.10
950616	1600	1.00	0.132	0.132	7.56	7.56	2.0	4.0	11.0	29.3	28.7	22.0	0.08
950616	1900	1.08	0.123	0.123	8.16	8.16	2.0	6.0	10.2	25.5	25.3	19.0	0.09
950616	2200	0.98	0.132	0.132	7.56	7.56	6.0	8.0	12.0	26.7	25.6	15.9	0.11
950617	0100	0.84	0.123	0.123	8.16	8.16	4.0	6.0	10.5	25.9	25.6	18.3	0.09
950617	0400	0.73	0.132	0.123	7.56	8.16	0.0	6.0	7.0	28.5	27.3	27.2	0.08
950617	0700	0.74	0.123	0.132	8.16	7.56	2.0	0.0	6.3	28.4	25.7	21.1	0.09
950617	1000	0.72	0.123	0.123	8.16	8.16	4.0	12.0	7.6	29.8	26.6	27.2	0.13
950617	1300	0.64	0.132	0.132	7.56	7.56	4.0	6.0	13.5	32.7	31.4	19.6	0.19
950617	1600	0.62	0.132	0.123	7.56	8.16	4.0	2.0	5.4	42.4	37.5	25.9	0.12
950617	1900	0.65	0.171	0.171	5.83	5.83	-26.0	-28.0	-20.2	40.0	38.9	31.5	0.11
950617	2200	0.72	0.162	0.162	6.19	6.19	-34.0	-34.0	-29.1	33.3	32.2	14.4	0.13
950618	0100	0.79	0.142	0.132	7.04	7.56	-38.0	-36.0	-33.8	30.1	30.0	29.4	0.12
950618	0400	0.87	0.142	0.142	7.04	7.04	-38.0	-38.0	-32.7	27.6	29.4	27.9	0.10
950618	0700	0.88	0.132	0.142	7.56	7.04	-32.0	-32.0	-33.0	14.2	16.4	11.8	0.09
950618	1000	0.91	0.142	0.142	7.04	7.04	-40.0	-36.0	-36.7	15.2	17.6	12.5	0.12
950618	1300	0.90	0.152	0.132	6.59	7.56	-40.0	-40.0	-33.3	19.4	20.6	16.7	0.14
950618	1600	1.05	0.132	0.132	7.56	7.56	-24.0	-26.0	-26.9	21.8	22.9	18.4	0.12
950618	1900	1.26	0.132	0.132	7.56	7.56	-26.0	-26.0	-25.3	19.5	21.0	13.3	0.08
950618	2200	1.18	0.132	0.132	7.56	7.56	-24.0	-24.0	-24.2	20.8	22.6	16.8	0.14
950619	0100	1.05	0.123	0.123	8.16	8.16	-26.0	-26.0	-26.3	16.7	19.5	11.9	0.11
950619	0400	0.95	0.132	0.132	7.56	7.56	-30.0	-28.0	-27.3	17.9	19.9	11.2	0.09
950619	0700	0.83	0.152	0.132	6.59	7.56	-36.0	-38.0	-33.1	21.7	23.9	15.9	0.12
950619	1000	0.87	0.142	0.142	7.04	7.04	-40.0	-40.0	-35.2	21.6	23.5	14.3	0.17
950619	1300	1.00	0.132	0.142	7.56	7.04	-40.0	-28.0	-30.6	20.4	23.1	17.7	0.11
950619	1600	0.93	0.142	0.142	7.04	7.04	-44.0	-42.0	-37.5	25.7	26.7	18.1	0.12
950619	1900	0.97	0.152	0.152	6.59	6.59	-28.0	-28.0	-30.9	18.2	21.0	14.9	0.09
950619	2200	0.95	0.142	0.142	7.04	7.04	-26.0	-28.0	-30.8	16.2	18.6	14.0	0.11
950620	0100	0.81	0.123	0.123	8.16	8.16	-26.0	-28.0	-30.7	18.3	20.1	14.4	0.13
950620	0400	0.66	0.123	0.123	8.16	8.16	-34.0	-36.0	-32.3	20.3	21.7	13.6	0.12
950620	0700	0.57	0.132	0.132	7.56	7.56	-26.0	-38.0	-36.4	20.2	21.6	15.3	0.14
950620	1000	0.60	0.132	0.132	7.56	7.56	-28.0	-32.0	-37.0	16.2	18.4	11.1	0.15
950620	1300	0.57	0.123	0.123	8.16	8.16	-40.0	-40.0	-40.1	21.1	21.0	17.0	0.25
950620	1600	0.55	0.132	0.132	7.56	7.56	-40.0	-40.0	-38.4	20.9	19.0	17.4	0.22
950620	1900	0.53	0.132	0.132	7.56	7.56	-38.0	-38.0	-38.3	21.4	17.9	14.8	0.18
950620	2200	0.51	0.132	0.132	7.56	7.56	-38.0	-38.0	-36.6	21.6	17.5	17.3	0.23
950621	0100	0.44	0.142	0.132	7.04	7.56	-38.0	-38.0	-35.0	21.4	18.6	21.5	0.25
950621	0400	0.40	0.142	0.113	7.04	8.87	-40.0	-38.0	-32.8	24.8	20.9	23.6	0.26
950621	0700	0.41	0.142	0.113	7.04	8.87	-40.0	-40.0	-34.2	22.4	19.6	19.6	0.21
950621	1000	0.42	0.123	0.113	8.16	8.87	-38.0	-38.0	-33.9	24.4	21.4	21.8	0.25
950621	1300	0.43	0.113	0.103	8.87	9.71	-36.0	-40.0	-34.8	24.9	21.4	22.9	0.30
950621	1600	0.44	0.103	0.093	9.71	10.72	-38.0	-38.0	-34.8	26.7	20.0	23.4	0.29

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950621	1900	0.43	0.103	0.093	9.71	10.72	-26.0	-40.0	-33.8	25.0	19.4	24.2	0.26
950621	2200	0.57	0.210	0.113	4.75	8.87	-50.0	-44.0	-44.1	27.3	17.4	20.1	0.22
950622	0100	0.64	0.171	0.171	5.83	5.83	-48.0	-44.0	-42.5	24.2	19.6	18.1	0.18
950622	0400	0.76	0.162	0.162	6.19	6.19	-46.0	-44.0	-38.9	19.1	19.3	16.2	0.17
950622	0700	0.68	0.142	0.152	7.04	6.59	-44.0	-46.0	-42.0	22.5	21.2	18.6	0.14
950622	1000	0.70	0.152	0.152	6.59	6.59	-44.0	-46.0	-34.7	32.4	29.3	13.8	0.12
950622	1300	0.73	0.152	0.152	6.59	6.59	-44.0	-46.0	-37.3	35.6	29.6	18.0	0.13
950622	1600	0.71	0.152	0.152	6.59	6.59	14.0	-46.0	-29.8	55.7	42.3	50.0	0.16
950622	1900	0.87	0.152	0.142	6.59	7.04	12.0	14.0	15.1	35.4	33.4	21.9	0.10
950622	2200	0.70	0.142	0.142	7.04	7.04	12.0	14.0	12.7	46.8	41.1	11.6	0.10
950623	0100	0.78	0.162	0.162	6.19	6.19	-44.0	-44.0	-15.0	59.0	56.8	47.5	0.10
950623	0400	0.79	0.162	0.181	6.19	5.52	-50.0	-48.0	-17.0	59.8	59.8	64.4	0.11
950623	0700	0.74	0.123	0.123	8.16	8.16	12.0	10.0	0.1	54.4	54.5	23.9	0.11
950623	1000	0.68	0.152	0.162	6.59	6.19	4.0	-42.0	-18.4	51.6	53.7	30.5	0.10
950623	1300	0.66	0.123	0.123	8.16	8.16	-36.0	-40.0	-18.1	50.6	54.0	41.6	0.13
950623	1600	0.65	0.123	0.132	8.16	7.56	-34.0	-36.0	-18.5	52.5	55.7	39.6	0.12
950623	1900	0.69	0.132	0.142	7.56	7.04	-40.0	-40.0	-4.4	58.1	53.1	47.6	0.12
950623	2200	0.65	0.142	0.142	7.04	7.04	-40.0	-40.0	-12.1	56.0	52.9	51.8	0.11
950624	0100	0.68	0.142	0.142	7.04	7.04	-40.0	-38.0	3.3	54.8	53.1	43.7	0.12
950624	0400	0.68	0.132	0.123	7.56	8.16	-42.0	-42.0	0.6	56.6	53.0	35.7	0.13
950624	0700	0.65	0.132	0.123	7.56	8.16	-40.0	-40.0	-3.1	53.8	51.2	41.7	0.13
950624	1000	0.64	0.132	0.132	7.56	7.56	-42.0	12.0	8.8	49.8	47.1	42.2	0.11
950624	1300	0.66	0.142	0.142	7.04	7.04	-42.0	-42.0	-4.4	57.9	51.3	42.1	0.12
950624	1600	0.64	0.132	0.132	7.56	7.56	-44.0	-44.0	-1.1	59.4	53.7	37.6	0.13
950624	1900	0.63	0.123	0.132	8.16	7.56	-38.0	-14.0	-3.0	53.1	45.3	37.2	0.14
950624	2200	0.75	0.113	0.113	8.87	8.87	-26.0	-24.0	-10.4	31.6	31.4	19.6	0.12
950625	0100	0.90	0.132	0.123	7.56	8.16	-24.0	-20.0	-14.5	27.2	29.2	23.7	0.10
950625	0400	0.80	0.123	0.113	8.16	8.87	-26.0	-26.0	-13.9	31.7	35.3	25.9	0.15
950625	0700	0.77	0.123	0.123	8.16	8.16	-24.0	-22.0	-9.4	31.9	35.2	22.5	0.14
950625	1000	0.67	0.123	0.123	8.16	8.16	-22.0	-20.0	-14.3	29.5	34.1	20.3	0.12
950625	1300	0.74	0.123	0.123	8.16	8.16	-8.0	-22.0	-16.1	25.8	29.9	21.2	0.13
950625	1600	0.70	0.132	0.123	7.56	8.16	-12.0	-14.0	-26.6	27.4	30.7	18.4	0.14
950625	1900	0.62	0.123	0.123	8.16	8.16	-12.0	-16.0	-15.7	30.5	34.8	22.3	0.16
950625	2200	0.65	0.123	0.123	8.16	8.16	-10.0	-16.0	-14.2	23.0	27.7	17.7	0.14
950626	0100	0.67	0.123	0.123	8.16	8.16	-10.0	-18.0	-12.8	25.0	26.7	19.4	0.13
950626	0400	0.73	0.123	0.132	8.16	7.56	-12.0	-12.0	-19.3	26.6	28.3	22.0	0.15
950626	0700	0.71	0.132	0.123	7.56	8.16	-16.0	-16.0	-16.0	27.4	29.6	25.4	0.15
950626	1000	0.69	0.123	0.123	8.16	8.16	-6.0	-6.0	-9.6	26.6	28.8	22.5	0.13
950626	1300	0.73	0.132	0.132	7.56	7.56	-16.0	-16.0	-17.9	26.5	27.9	23.8	0.13
950626	1600	0.77	0.113	0.123	8.87	8.16	-16.0	-16.0	-17.8	22.4	23.5	21.4	0.17
950626	1900	0.82	0.113	0.113	8.87	8.87	-10.0	-10.0	-13.2	21.6	22.6	19.8	0.19
950626	2200	0.89	0.113	0.113	8.87	8.87	-6.0	-10.0	-11.1	20.7	21.5	19.1	0.16
950627	0100	0.95	0.113	0.113	8.87	8.87	-10.0	-10.0	-11.7	19.9	20.2	17.4	0.13
950627	0400	0.94	0.113	0.113	8.87	8.87	-18.0	-18.0	-18.4	21.3	22.0	18.3	0.16
950627	0700	0.88	0.113	0.113	8.87	8.87	-8.0	-8.0	-14.5	24.6	25.2	22.3	0.17
950627	1300	1.01	0.123	0.123	8.16	8.16	-16.0	-12.0	-3.8	30.7	29.5	22.1	0.11
950627	1600	1.02	0.123	0.123	8.16	8.16	-10.0	-20.0	-2.3	35.2	32.0	22.3	0.11
950627	1900	0.97	0.123	0.123	8.16	8.16	-12.0	-4.0	2.7	38.2	36.2	22.7	0.13
950627	2200	0.94	0.123	0.123	8.16	8.16	-4.0	-4.0	8.0	44.2	41.6	33.1	0.12
950628	0100	1.16	0.171	0.123	5.83	8.16	28.0	26.0	14.5	36.5	30.5	29.1	0.09
950628	0400	1.37	0.142	0.123	7.04	8.16	18.0	28.0	22.5	33.7	31.3	26.9	0.10
950628	0700	1.49	0.132	0.123	7.56	8.16	22.0	18.0	20.6	31.7	32.0	26.0	0.11
950628	1000	1.53	0.103	0.103	9.71	9.71	12.0	12.0	15.4	24.9	27.2	15.9	0.09

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950628	1300	1.56	0.113	0.113	8.87	8.87	18.0	8.0	11.5	25.2	26.6	19.3	0.09
950628	1600	1.64	0.093	0.093	10.72	10.72	4.0	4.0	10.2	24.8	27.2	15.2	0.10
950628	1900	1.62	0.083	0.083	11.98	11.98	10.0	6.0	14.8	29.5	30.8	21.9	0.12
950628	2200	1.53	0.093	0.093	10.72	10.72	8.0	6.0	13.1	29.2	28.9	15.2	0.12
950629	0100	1.39	0.083	0.083	11.98	11.98	4.0	4.0	10.7	31.5	32.0	18.3	0.11
950629	0400	1.34	0.083	0.083	11.98	11.98	6.0	4.0	7.6	31.9	31.6	20.9	0.10
950629	0700	1.32	0.093	0.093	10.72	10.72	8.0	10.0	10.3	32.8	32.9	23.1	0.14
950629	1000	1.26	0.093	0.093	10.72	10.72	-12.0	-12.0	2.9	31.2	33.0	22.7	0.13
950629	1300	1.15	0.103	0.103	9.71	9.71	-4.0	-8.0	4.6	31.6	34.1	19.5	0.10
950629	1600	1.15	0.103	0.103	9.71	9.71	4.0	-12.0	3.1	29.4	31.5	23.2	0.12
950629	1900	1.12	0.113	0.103	8.87	9.71	-10.0	-8.0	0.5	27.2	30.4	18.8	0.14
950629	2200	0.98	0.103	0.103	9.71	9.71	-2.0	-2.0	-10.8	29.3	32.4	19.4	0.13
950630	0100	0.93	0.103	0.103	9.71	9.71	6.0	2.0	-3.5	29.2	32.1	22.4	0.10
950630	0400	0.97	0.093	0.093	10.72	10.72	6.0	-6.0	-9.6	28.0	29.9	22.2	0.10
950630	0700	0.94	0.103	0.103	9.71	9.71	-2.0	-2.0	-4.2	29.5	32.5	20.6	0.13
950630	1000	0.89	0.103	0.103	9.71	9.71	0.0	0.0	-2.6	28.8	32.5	19.8	0.14
950630	1300	0.87	0.123	0.123	8.16	8.16	-12.0	-14.0	-4.3	26.0	29.7	20.2	0.10
950630	1600	0.83	0.113	0.113	8.87	8.87	0.0	-6.0	-10.7	26.1	27.2	15.8	0.11
950630	1900	0.78	0.123	0.123	8.16	8.16	-4.0	-6.0	-14.5	27.1	26.6	15.1	0.13
950630	2200	0.70	0.103	0.103	9.71	9.71	0.0	-2.0	-12.6	28.3	28.3	15.8	0.14
950701	0100	0.69	0.103	0.103	9.71	9.71	-2.0	-12.0	-13.2	27.8	31.7	16.7	0.12
950701	0400	0.59	0.103	0.103	9.71	9.71	4.0	2.0	-15.0	31.1	32.1	21.6	0.12
950701	0700	0.58	0.113	0.113	8.87	8.87	2.0	-2.0	-12.6	31.5	32.2	23.2	0.15
950701	1000	0.55	0.113	0.113	8.87	8.87	-2.0	0.0	-17.1	33.7	32.7	21.3	0.16
950701	1300	0.54	0.113	0.113	8.87	8.87	-8.0	-18.0	-16.7	31.6	28.3	21.8	0.13
950701	1600	0.56	0.113	0.113	8.87	8.87	2.0	-26.0	-31.7	41.2	24.6	18.1	0.15
950701	1900	0.47	0.181	0.152	5.52	6.59	-38.0	-18.0	-28.9	33.8	24.2	20.3	0.18
950701	2200	0.45	0.152	0.113	6.59	8.87	-36.0	-36.0	-27.4	33.4	26.1	26.3	0.17
950702	0100	0.43	0.162	0.113	6.19	8.87	-36.0	-32.0	-25.0	31.8	25.4	27.4	0.18
950702	0400	0.43	0.123	0.123	8.16	8.16	-14.0	-18.0	-25.1	30.5	26.5	20.5	0.16
950702	0700	0.43	0.123	0.123	8.16	8.16	-16.0	-18.0	-23.0	28.4	27.2	19.5	0.17
950702	1000	0.41	0.132	0.132	7.56	7.56	-22.0	-20.0	-23.4	25.8	25.4	16.1	0.18
950702	1300	0.39	0.123	0.123	8.16	8.16	-20.0	-24.0	-7.0	39.9	32.7	15.5	0.18
950702	1600	0.36	0.142	0.123	7.04	8.16	-20.0	-22.0	-6.4	39.1	30.7	23.0	0.18
950702	1900	0.42	0.279	0.132	3.59	7.56	64.0	-26.0	12.3	85.4	26.5	21.8	0.19
950702	2200	0.33	0.132	0.132	7.56	7.56	-4.0	-30.0	-13.1	34.2	32.1	30.0	0.21
950703	0100	0.30	0.132	0.132	7.56	7.56	-20.0	-26.0	-20.4	32.8	32.2	30.3	0.23
950703	0400	0.32	0.132	0.132	7.56	7.56	-24.0	-24.0	-22.1	29.0	27.1	19.8	0.22
950703	0700	0.32	0.142	0.142	7.04	7.04	-20.0	-22.0	-23.5	29.6	27.2	18.6	0.26
950703	1000	0.29	0.132	0.132	7.56	7.56	-38.0	-18.0	-20.9	37.1	36.9	35.2	0.25
950703	1300	0.30	0.152	0.142	6.59	7.04	-28.0	-24.0	-5.8	44.3	34.6	21.5	0.27
950703	1600	0.33	0.152	0.152	6.59	6.59	-20.0	-14.0	-0.2	46.4	33.9	27.1	0.23
950703	1900	0.37	0.318	0.152	3.15	6.59	-48.0	-16.0	-16.0	44.2	41.3	34.6	0.25
950703	2200	0.38	0.298	0.318	3.35	3.15	-90.0	-38.0	-32.5	47.3	44.0	38.2	0.23
950704	0100	0.38	0.201	0.132	4.98	7.56	42.0	42.0	-6.1	64.6	51.1	30.3	0.20
950704	0400	0.38	0.210	0.210	4.75	4.75	40.0	40.0	-16.5	69.7	42.9	11.4	0.20
950704	0700	0.35	0.162	0.152	6.19	6.59	-48.0	-10.0	-17.9	50.9	43.8	36.0	0.23
950704	1000	0.36	0.074	0.074	13.56	13.56	-12.0	-10.0	-28.0	48.6	44.4	19.0	0.29
950704	1300	0.37	0.074	0.074	13.56	13.56	-14.0	-12.0	-37.0	48.6	41.8	15.8	0.22
950704	1600	0.45	0.298	0.298	3.35	3.35	-58.0	-52.0	-39.5	44.0	32.5	23.2	0.21
950704	1900	0.50	0.220	0.220	4.54	4.54	-46.0	-46.0	-36.1	33.6	29.2	19.4	0.16
950704	2200	0.58	0.201	0.210	4.98	4.75	-52.0	-50.0	-38.4	34.7	32.7	26.6	0.14
950705	0100	0.52	0.210	0.210	4.75	4.75	-50.0	-50.0	-35.9	37.6	33.4	24.2	0.14

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950705	0400	0.47	0.210	0.210	4.75	4.75	-48.0	-48.0	-34.0	36.8	32.4	29.3	0.14
950705	0700	0.47	0.220	0.220	4.54	4.54	-46.0	-12.0	-29.3	35.1	33.6	33.6	0.17
950705	1000	0.55	0.298	0.318	3.35	3.15	-54.0	-50.0	-36.2	35.3	32.5	27.5	0.21
950705	1300	0.47	0.230	0.220	4.35	4.54	-44.0	-46.0	-34.4	35.4	32.1	30.3	0.20
950705	1600	0.49	0.210	0.210	4.75	4.75	-40.0	-44.0	-40.7	33.3	29.4	25.4	0.15
950705	1900	0.52	0.201	0.201	4.98	4.98	-44.0	-22.0	-31.0	29.0	27.7	25.4	0.16
950705	2200	0.57	0.191	0.201	5.24	4.98	-48.0	-46.0	-39.3	29.7	26.8	22.0	0.16
950706	0100	0.58	0.181	0.181	5.52	5.52	-48.0	-46.0	-35.7	28.7	26.0	19.2	0.15
950706	0400	0.57	0.181	0.181	5.52	5.52	-44.0	-44.0	-38.8	26.3	25.4	16.5	0.14
950706	0700	0.59	0.171	0.181	5.83	5.52	-42.0	-42.0	-34.8	25.6	24.1	19.6	0.14
950706	1000	0.62	0.181	0.181	5.52	5.52	-28.0	-44.0	-34.7	26.0	24.0	18.5	0.20
950706	1300	0.56	0.171	0.191	5.83	5.24	-42.0	-44.0	-37.7	30.2	25.4	21.2	0.24
950706	1600	0.52	0.171	0.171	5.83	5.83	-46.0	-46.0	-35.9	32.3	26.2	15.2	0.19
950706	1900	0.51	0.181	0.181	5.52	5.52	-42.0	-16.0	-33.9	29.6	27.6	26.8	0.18
950706	2200	0.56	0.191	0.083	5.24	11.98	-44.0	-16.0	-27.5	28.0	26.8	20.4	0.21
950707	0100	0.58	0.171	0.171	5.83	5.83	-40.0	-18.0	-29.3	28.9	28.8	24.4	0.21
950707	0400	0.62	0.142	0.142	7.04	7.04	-42.0	-42.0	-36.9	27.6	25.3	21.0	0.18
950707	0700	0.67	0.162	0.162	6.19	6.19	-42.0	-40.0	-36.9	24.9	22.0	16.9	0.14
950707	1000	0.66	0.152	0.152	6.59	6.59	-42.0	-40.0	-35.5	26.3	23.9	16.0	0.20
950707	1300	0.68	0.162	0.162	6.19	6.19	-44.0	-42.0	-35.9	28.8	25.5	16.9	0.24
950707	1600	0.68	0.123	0.083	8.16	11.98	-38.0	-38.0	-36.2	25.0	23.3	23.5	0.23
950707	1900	0.69	0.113	0.113	8.87	8.87	-34.0	-36.0	-31.4	22.9	20.0	13.2	0.19
950707	2200	0.69	0.113	0.113	8.87	8.87	-36.0	-36.0	-33.4	22.4	18.6	11.9	0.22
950708	0100	0.67	0.113	0.132	8.87	7.56	-38.0	-36.0	-34.1	24.8	20.1	16.1	0.25
950708	0400	0.59	0.132	0.083	7.56	11.98	-38.0	-36.0	-34.5	26.4	22.7	22.3	0.24
950708	0700	0.58	0.123	0.113	8.16	8.87	-34.0	-36.0	-31.0	25.1	22.3	16.6	0.22
950708	1000	0.64	0.123	0.123	8.16	8.16	-32.0	-34.0	-29.2	23.7	21.0	11.6	0.23
950708	1300	0.65	0.113	0.113	8.87	8.87	-22.0	-24.0	-24.7	21.9	20.7	12.7	0.27
950708	1600	0.60	0.113	0.113	8.87	8.87	-24.0	-24.0	-25.5	20.8	21.9	12.3	0.25
950708	1900	0.56	0.123	0.123	8.16	8.16	-26.0	-24.0	-22.8	19.5	21.4	14.3	0.28
950708	2200	0.52	0.142	0.142	7.04	7.04	-28.0	-28.0	-23.1	21.0	22.0	14.4	0.20
950709	0100	0.53	0.074	0.074	13.56	13.56	-20.0	-22.0	-11.4	30.2	25.7	25.9	0.31
950709	0400	1.06	0.220	0.220	4.54	4.54	56.0	58.0	39.1	35.9	26.5	24.9	0.19
950709	0700	1.01	0.201	0.201	4.98	4.98	52.0	52.0	39.4	32.2	22.7	16.1	0.18
950709	1000	0.74	0.191	0.201	5.24	4.98	38.0	40.0	21.0	46.4	25.7	17.7	0.18
950709	1300	0.71	0.181	0.191	5.52	5.24	40.0	40.0	17.0	47.9	26.6	22.8	0.20
950709	1600	0.55	0.074	0.074	13.56	13.56	-6.0	40.0	13.0	51.1	28.6	23.3	0.25
950709	1900	0.51	0.074	0.074	13.56	13.56	-10.0	-8.0	4.1	46.3	28.3	17.2	0.23
950709	2200	0.48	0.083	0.083	11.98	11.98	0.0	-4.0	-0.7	42.7	32.9	30.1	0.20
950710	0100	0.50	0.083	0.083	11.98	11.98	-10.0	-8.0	1.2	37.3	34.0	28.6	0.22
950710	0400	0.49	0.093	0.093	10.72	10.72	-26.0	-12.0	-3.6	39.9	32.8	30.1	0.21
950710	0700	0.48	0.083	0.093	11.98	10.72	-34.0	0.0	-0.6	41.1	34.7	29.0	0.22
950710	1000	0.56	0.308	0.093	3.25	10.72	-14.0	-14.0	-10.5	34.9	34.3	27.2	0.15
950710	1300	0.61	0.259	0.269	3.86	3.72	-24.0	-28.0	-19.7	37.9	38.5	42.5	0.15
950710	1600	0.57	0.083	0.083	11.98	11.98	-14.0	-16.0	-18.3	35.5	35.6	27.5	0.21
950710	1900	0.51	0.083	0.083	11.98	11.98	-14.0	-12.0	-15.2	36.5	36.2	28.3	0.23
950710	2200	0.45	0.093	0.093	10.72	10.72	-10.0	-8.0	-17.8	32.2	32.8	24.3	0.22
950711	0100	0.46	0.093	0.093	10.72	10.72	-8.0	-6.0	-17.6	28.7	28.6	21.5	0.22
950711	0400	0.45	0.093	0.093	10.72	10.72	-6.0	-8.0	-19.2	30.5	29.3	22.9	0.23
950711	0700	0.42	0.093	0.083	10.72	11.98	-10.0	-8.0	-23.8	31.1	30.4	27.3	0.28
950711	1000	0.40	0.083	0.083	11.98	11.98	-2.0	-10.0	-21.8	33.4	26.9	27.2	0.24
950711	1300	0.42	0.093	0.093	10.72	10.72	-8.0	-8.0	-23.5	34.5	27.8	23.4	0.24
950711	1600	0.45	0.093	0.093	10.72	10.72	-12.0	-10.0	-27.4	38.2	23.9	19.4	0.27
950711	1900	0.44	0.093	0.093	10.72	10.72	-6.0	-6.0	-29.6	38.5	27.4	23.6	0.30

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950711	2200	0.43	0.093	0.093	10.72	10.72	-14.0	-10.0	-28.3	33.5	27.6	19.3	0.23
950712	0100	0.42	0.093	0.093	10.72	10.72	-12.0	-10.0	-25.5	33.3	24.2	21.2	0.20
950712	0400	0.42	0.152	0.093	6.59	10.72	-46.0	-46.0	-29.2	37.0	24.7	29.3	0.22
950712	0700	0.41	0.152	0.093	6.59	10.72	-46.0	-46.0	-31.3	40.0	28.7	26.3	0.24
950712	1000	0.42	0.093	0.093	10.72	10.72	-6.0	-30.0	-23.7	41.4	39.9	24.1	0.21
950712	1300	0.44	0.093	0.093	10.72	10.72	-18.0	-18.0	-31.7	33.8	31.6	23.1	0.18
950712	1600	0.46	0.162	0.103	6.19	9.71	-40.0	-42.0	-27.4	32.7	25.5	24.5	0.20
950712	1900	0.45	0.171	0.093	5.83	10.72	-46.0	-44.0	-31.2	32.1	23.9	32.4	0.24
950712	2200	0.45	0.162	0.093	6.19	10.72	-48.0	-48.0	-31.9	35.1	23.8	28.0	0.20
950713	0100	0.45	0.162	0.093	6.19	10.72	-44.0	-46.0	-31.5	38.9	25.9	31.0	0.16
950713	0400	0.45	0.103	0.093	9.71	10.72	-18.0	-46.0	-31.7	37.4	30.5	26.7	0.20
950713	0700	0.41	0.093	0.093	10.72	10.72	-16.0	-16.0	-29.0	39.5	32.4	24.3	0.21
950713	1000	0.39	0.162	0.093	6.19	10.72	-48.0	-32.0	-28.5	39.4	34.1	30.0	0.23
950713	1300	0.41	0.103	0.103	9.71	9.71	-14.0	-10.0	-28.6	37.6	27.9	22.9	0.16
950713	1600	0.45	0.171	0.103	5.83	9.71	-48.0	-46.0	-33.5	37.3	25.8	25.1	0.20
950713	1900	0.42	0.171	0.093	5.83	10.72	-48.0	-48.0	-36.6	36.2	24.8	35.1	0.24
950713	2200	0.41	0.162	0.093	6.19	10.72	-50.0	-50.0	-33.1	41.3	26.8	35.1	0.29
950714	0100	0.35	0.093	0.093	10.72	10.72	0.0	-42.0	-22.5	38.6	26.0	30.9	0.18
950714	0400	0.34	0.103	0.103	9.71	9.71	-12.0	-32.0	-30.4	35.1	26.7	26.3	0.25
950714	0700	0.34	0.093	0.093	10.72	10.72	-28.0	-34.0	-31.4	34.6	27.5	29.1	0.29
950714	1000	0.32	0.093	0.103	10.72	9.71	-30.0	-32.0	-33.1	32.3	25.9	26.2	0.27
950714	1300	0.30	0.103	0.103	9.71	9.71	-20.0	-34.0	-29.6	30.1	24.0	25.3	0.21
950714	1600	0.36	0.103	0.103	9.71	9.71	-32.0	-34.0	-38.1	31.4	21.0	21.9	0.25
950714	1900	0.40	0.289	0.103	3.47	9.71	-52.0	-52.0	-39.6	28.4	16.2	24.2	0.31
950714	2200	0.35	0.093	0.093	10.72	10.72	-18.0	-36.0	-35.0	26.3	18.3	22.1	0.31
950715	0100	0.32	0.093	0.103	10.72	9.71	-32.0	-32.0	-31.8	27.6	20.2	23.3	0.25
950715	0400	0.34	0.103	0.103	9.71	9.71	-28.0	-32.0	-28.7	25.3	21.9	23.1	0.25
950715	0700	0.37	0.083	0.083	11.98	11.98	-32.0	-34.0	-34.4	21.7	20.7	19.1	0.36
950715	1000	0.46	0.083	0.083	11.98	11.98	-30.0	-32.0	-33.7	21.0	20.9	16.1	0.36
950715	1300	0.50	0.093	0.093	10.72	10.72	-20.0	-32.0	-31.1	20.3	20.4	19.8	0.26
950715	1600	0.61	0.093	0.093	10.72	10.72	-34.0	-34.0	-34.3	15.8	15.6	16.1	0.17
950715	1900	0.72	0.093	0.093	10.72	10.72	-36.0	-36.0	-35.6	18.7	17.7	18.7	0.26
950715	2200	0.67	0.083	0.083	11.98	11.98	-38.0	-36.0	-38.2	19.5	18.7	16.9	0.26
950716	0100	0.71	0.083	0.083	11.98	11.98	-36.0	-34.0	-33.0	19.6	19.4	19.4	0.21
950716	0400	0.69	0.083	0.083	11.98	11.98	-18.0	-34.0	-25.5	20.4	20.4	20.5	0.15
950716	0700	0.67	0.103	0.093	9.71	10.72	-38.0	-36.0	-36.9	18.8	20.1	22.1	0.25
950716	1000	0.62	0.093	0.093	10.72	10.72	-40.0	-38.0	-38.6	20.2	20.4	21.3	0.29
950716	1300	0.60	0.103	0.093	9.71	10.72	-36.0	-38.0	-34.0	20.8	20.2	24.9	0.27
950716	1600	0.56	0.103	0.103	9.71	9.71	-36.0	-36.0	-35.1	17.5	16.9	15.4	0.21
950716	1900	0.60	0.103	0.103	9.71	9.71	-38.0	-36.0	-29.1	23.8	27.1	24.0	0.24
950716	2200	0.68	0.093	0.103	10.72	9.71	-38.0	-38.0	-14.3	63.0	28.3	22.6	0.23
950717	0100	0.67	0.093	0.093	10.72	10.72	-34.0	-36.0	-15.8	48.1	28.6	21.9	0.24
950717	0400	0.70	0.093	0.093	10.72	10.72	-28.0	-34.0	-17.7	36.3	25.8	16.0	0.19
950717	0700	0.76	0.093	0.093	10.72	10.72	-40.0	-36.0	-25.6	34.9	27.6	17.3	0.18
950717	1000	0.72	0.083	0.093	11.98	10.72	-42.0	-40.0	-27.7	33.4	33.0	19.0	0.25
950717	1300	0.64	0.093	0.093	10.72	10.72	-40.0	-40.0	-38.2	28.2	30.4	21.6	0.22
950717	1600	0.64	0.093	0.093	10.72	10.72	-38.0	-38.0	-38.9	22.7	22.5	23.1	0.25
950717	1900	0.75	0.083	0.083	11.98	11.98	-20.0	-36.0	-35.1	20.1	19.7	21.2	0.23
950717	2200	0.86	0.083	0.083	11.98	11.98	-40.0	-38.0	-39.2	21.2	21.3	25.5	0.27
950718	0100	0.75	0.083	0.083	11.98	11.98	-24.0	-30.0	-34.9	19.8	19.0	19.9	0.23
950718	0400	0.80	0.083	0.083	11.98	11.98	-26.0	-36.0	-31.0	18.0	18.2	21.7	0.23
950718	0700	0.83	0.093	0.083	10.72	11.98	-36.0	-36.0	-38.3	21.8	21.6	26.0	0.22
950718	1000	0.75	0.093	0.093	10.72	10.72	-38.0	-38.0	-38.7	18.3	18.3	17.0	0.28

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950718	1300	0.66	0.093	0.093	10.72	10.72	-38.0	-38.0	-38.9	19.4	19.0	19.1	0.35
950718	1600	0.62	0.113	0.093	8.87	10.72	-32.0	-36.0	-36.4	19.7	18.3	24.9	0.27
950718	1900	0.57	0.113	0.093	8.87	10.72	-28.0	-36.0	-32.3	20.5	19.6	20.7	0.29
950718	2200	0.56	0.093	0.093	10.72	10.72	-38.0	-36.0	-33.6	21.5	20.7	27.9	0.35
950719	0100	0.48	0.093	0.093	10.72	10.72	-34.0	-32.0	-32.6	22.3	20.6	26.0	0.33
950719	0400	0.40	0.103	0.093	9.71	10.72	-38.0	-34.0	-32.3	26.3	23.4	24.1	0.33
950719	0700	0.38	0.103	0.103	9.71	9.71	-26.0	-28.0	-29.0	27.3	26.0	22.8	0.28
950719	1000	0.43	0.103	0.103	9.71	9.71	-20.0	-24.0	-17.8	33.3	28.3	20.6	0.30
950719	1300	0.45	0.113	0.113	8.87	8.87	-36.0	-34.0	-15.7	42.1	27.9	21.4	0.27
950719	1600	0.42	0.113	0.113	8.87	8.87	-36.0	-34.0	-17.5	40.1	33.1	21.8	0.26
950719	1900	0.43	0.123	0.123	8.16	8.16	-36.0	-34.0	-20.2	39.3	33.3	20.5	0.21
950719	2200	0.43	0.123	0.132	8.16	7.56	-36.0	-36.0	-27.4	34.0	35.2	22.6	0.24
950720	0100	0.43	0.132	0.132	7.56	7.56	-36.0	-36.0	-31.8	33.2	32.8	13.0	0.24
950720	0400	0.44	0.123	0.132	8.16	7.56	-34.0	-36.0	-33.1	30.5	30.3	20.9	0.25
950720	0700	0.41	0.142	0.142	7.04	7.04	-40.0	-34.0	-26.5	36.7	32.1	24.1	0.23
950720	1000	0.43	0.152	0.103	6.59	9.71	-42.0	-34.0	-32.5	34.8	32.3	33.3	0.27
950720	1300	0.42	0.162	0.103	6.19	9.71	-46.0	-32.0	-27.2	40.9	30.5	29.6	0.28
950720	1600	0.43	0.113	0.103	8.87	9.71	-36.0	-36.0	-29.7	42.5	32.0	36.3	0.29
950720	1900	0.46	0.142	0.123	7.04	8.16	-38.0	-32.0	-25.9	39.1	29.1	26.8	0.25
950720	2200	0.48	0.074	0.074	13.56	13.56	0.0	0.0	-16.7	36.8	26.9	13.2	0.32
950721	0100	0.46	0.074	0.074	13.56	13.56	-4.0	-4.0	-23.7	42.7	29.7	23.2	0.31
950721	0400	0.45	0.083	0.083	11.98	11.98	8.0	8.0	-15.0	43.9	28.0	20.3	0.36
950721	0700	0.46	0.083	0.083	11.98	11.98	4.0	2.0	-18.0	40.5	27.6	18.8	0.23
950721	1000	0.49	0.083	0.083	11.98	11.98	2.0	-38.0	-22.7	40.6	24.4	20.7	0.30
950721	1300	0.51	0.083	0.083	11.98	11.98	-8.0	-42.0	-26.9	40.7	25.5	20.7	0.32
950721	1600	0.56	0.093	0.083	10.72	11.98	-2.0	-50.0	-31.8	44.1	19.4	23.5	0.29
950721	1900	0.50	0.142	0.083	7.04	11.98	-38.0	-54.0	-28.0	43.0	18.5	21.0	0.24
950721	2200	0.45	0.132	0.083	7.56	11.98	-38.0	-38.0	-23.9	40.7	21.6	22.0	0.25
950722	0100	0.61	0.132	0.083	7.56	11.98	-40.0	54.0	17.9	80.9	35.0	25.2	0.21
950722	0400	0.53	0.083	0.083	11.98	11.98	4.0	-42.0	-0.4	56.4	31.5	21.5	0.22
950722	0700	0.47	0.083	0.083	11.98	11.98	4.0	-46.0	-21.2	41.5	26.9	18.7	0.22
950722	1000	0.46	0.093	0.093	10.72	10.72	-8.0	-36.0	-26.4	39.5	22.9	24.5	0.22
950722	1300	0.46	0.093	0.093	10.72	10.72	2.0	-38.0	-24.5	43.2	23.4	25.4	0.32
950722	1600	0.50	0.083	0.083	11.98	11.98	-12.0	-42.0	-32.5	40.1	21.2	24.3	0.29
950722	1900	0.45	0.083	0.083	11.98	11.98	-4.0	-34.0	-28.2	40.0	24.9	24.9	0.32
950722	2200	0.45	0.083	0.093	11.98	10.72	2.0	-32.0	-25.6	37.6	25.9	31.2	0.23
950723	0100	0.48	0.142	0.093	7.04	10.72	-26.0	-28.0	-31.8	34.7	23.8	30.0	0.25
950723	0400	0.48	0.142	0.083	7.04	11.98	-42.0	-32.0	-34.1	35.8	24.4	28.9	0.22
950723	0700	0.45	0.152	0.083	6.59	11.98	-42.0	-32.0	-32.9	37.5	25.5	30.7	0.22
950723	1000	0.46	0.103	0.103	9.71	9.71	-28.0	-32.0	-31.4	35.5	23.5	26.1	0.21
950723	1300	0.47	0.103	0.103	9.71	9.71	-32.0	-32.0	-32.9	36.0	25.1	30.5	0.29
950723	1600	0.48	0.103	0.103	9.71	9.71	-34.0	-34.0	-33.6	40.4	26.1	31.0	0.27
950723	1900	0.46	0.103	0.103	9.71	9.71	-34.0	-38.0	-34.5	33.3	24.7	25.9	0.27
950724	1000	0.49	0.113	0.113	8.87	8.87	-26.0	-38.0	-31.7	31.7	20.9	19.0	0.17
950724	1300	0.52	0.113	0.113	8.87	8.87	-8.0	-32.0	-28.2	30.7	21.9	23.8	0.21
950724	1600	0.48	0.113	0.113	8.87	8.87	-34.0	-36.0	-36.1	32.0	22.7	22.9	0.28
950724	1900	0.53	0.113	0.113	8.87	8.87	-34.0	-58.0	-41.6	35.9	17.3	21.7	0.24
950724	2200	0.47	0.113	0.113	8.87	8.87	-34.0	-34.0	-39.8	31.3	19.2	21.7	0.18
950725	0100	0.63	0.132	0.132	7.56	7.56	-36.0	-36.0	-38.4	21.1	16.6	13.5	0.15
950725	0400	0.67	0.142	0.162	7.04	6.19	-44.0	-46.0	-42.4	22.1	18.9	15.5	0.18
950725	0700	0.58	0.162	0.162	6.19	6.19	-50.0	-52.0	-46.0	25.7	17.3	8.7	0.19
950725	1000	0.50	0.152	0.123	6.59	8.16	-44.0	-46.0	-41.7	28.5	17.6	17.0	0.15
950725	1300	0.56	0.142	0.132	7.04	7.56	-40.0	-50.0	-41.0	27.2	17.3	17.9	0.21

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950725	1600	0.74	0.181	0.181	5.52	5.52	-52.0	-52.0	-46.0	24.1	15.4	15.7	0.23
950725	1900	0.53	0.210	0.142	4.75	7.04	-52.0	-54.0	-43.0	25.9	18.1	18.2	0.23
950725	2200	0.49	0.132	0.093	7.56	10.72	-42.0	-54.0	-40.1	25.9	17.9	26.6	0.16
950726	0100	0.49	0.142	0.103	7.04	9.71	-40.0	-38.0	-38.5	25.4	18.9	18.3	0.15
950726	0400	0.57	0.201	0.103	4.98	9.71	-52.0	-40.0	-40.8	24.8	19.5	20.1	0.19
950726	0700	0.59	0.210	0.181	4.75	5.52	-48.0	-46.0	-40.2	25.0	18.5	19.8	0.18
950726	1000	0.55	0.220	0.093	4.54	10.72	-50.0	-50.0	-39.7	25.7	17.1	23.6	0.16
950726	1300	0.53	0.123	0.103	8.16	9.71	-36.0	-36.0	-41.4	26.2	19.1	22.9	0.17
950726	1600	0.54	0.103	0.103	9.71	9.71	-34.0	-50.0	-37.8	30.5	20.3	22.7	0.27
950726	1900	0.55	0.152	0.103	6.59	9.71	-44.0	-44.0	-42.0	28.9	20.4	21.2	0.24
950726	2200	0.53	0.142	0.103	7.04	9.71	-40.0	-38.0	-39.6	26.4	17.9	19.9	0.17
950727	0100	0.53	0.123	0.142	8.16	7.04	-34.0	-50.0	-38.7	27.2	17.4	22.1	0.15
950727	0400	0.54	0.132	0.142	7.56	7.04	-36.0	-40.0	-38.0	26.9	16.4	17.3	0.23
950727	0700	0.50	0.142	0.142	7.04	7.04	-42.0	-44.0	-39.4	27.0	16.6	13.1	0.25
950727	1000	0.47	0.123	0.132	8.16	7.56	-36.0	-36.0	-35.9	27.8	18.5	20.4	0.21
950727	1300	0.47	0.162	0.093	6.19	10.72	-44.0	-34.0	-32.9	27.5	18.8	24.1	0.17
950727	1600	0.53	0.152	0.093	6.59	10.72	-44.0	-34.0	-38.9	28.6	18.4	25.2	0.28
950727	1900	0.57	0.181	0.093	5.52	10.72	-48.0	-54.0	-43.6	25.2	16.5	25.1	0.31
950727	2200	0.49	0.152	0.093	6.59	10.72	-44.0	-54.0	-40.9	29.0	16.0	22.8	0.21
950728	0100	0.44	0.171	0.093	5.83	10.72	-46.0	-52.0	-35.9	30.6	15.3	21.0	0.18
950728	0400	0.46	0.220	0.093	4.54	10.72	-52.0	-50.0	-38.5	29.2	15.9	23.2	0.26
950728	0700	0.46	0.210	0.093	4.75	10.72	-50.0	-50.0	-38.1	30.8	17.8	20.5	0.32
950728	1000	0.44	0.093	0.093	10.72	10.72	-10.0	-36.0	-34.3	29.8	19.9	23.8	0.24
950728	1300	0.44	0.103	0.103	9.71	9.71	-34.0	-34.0	-35.7	24.1	21.0	22.3	0.19
950728	1600	0.50	0.103	0.103	9.71	9.71	-28.0	-48.0	-36.6	25.0	17.2	18.8	0.27
950728	1900	0.51	0.103	0.093	9.71	10.72	-34.0	-52.0	-40.7	27.4	15.7	27.7	0.33
950728	2200	0.46	0.103	0.093	9.71	10.72	-34.0	-36.0	-37.8	28.3	17.1	21.4	0.25
950729	0100	0.45	0.093	0.093	10.72	10.72	-34.0	-34.0	-37.2	27.4	17.5	23.2	0.16
950729	0400	0.48	0.093	0.093	10.72	10.72	-26.0	-32.0	-37.0	24.9	18.1	22.2	0.19
950729	0700	0.54	0.220	0.093	4.54	10.72	-50.0	-34.0	-38.4	26.5	18.8	23.3	0.24
950729	1000	0.51	0.103	0.103	9.71	9.71	-34.0	-36.0	-38.9	28.3	19.1	20.5	0.21
950729	1300	0.50	0.103	0.103	9.71	9.71	-34.0	-34.0	-38.6	26.0	20.1	21.5	0.14
950729	1600	0.58	0.113	0.103	8.87	9.71	-20.0	-50.0	-34.4	28.2	18.4	24.4	0.19
950729	1900	0.60	0.113	0.113	8.87	8.87	-18.0	-48.0	-36.6	28.1	17.7	16.8	0.29
950729	2200	0.58	0.093	0.093	10.72	10.72	-32.0	-34.0	-36.8	25.6	17.6	22.2	0.26
950730	0100	0.57	0.142	0.103	7.04	9.71	-40.0	-32.0	-28.3	27.1	18.5	22.9	0.14
950730	0400	0.56	0.103	0.103	9.71	9.71	-32.0	-34.0	-34.8	24.4	18.4	20.9	0.16
950730	0700	0.54	0.103	0.103	9.71	9.71	-38.0	-38.0	-36.4	25.0	20.6	20.1	0.25
950730	1000	0.53	0.103	0.103	9.71	9.71	-36.0	-34.0	-35.5	23.7	21.0	20.5	0.26
950730	1300	0.54	0.113	0.113	8.87	8.87	-36.0	-34.0	-35.3	24.2	22.9	23.0	0.18
950730	1600	0.56	0.113	0.113	8.87	8.87	-34.0	-36.0	-35.5	21.6	21.8	20.7	0.20
950730	1900	0.59	0.113	0.113	8.87	8.87	-36.0	-36.0	-36.7	20.2	18.7	16.7	0.32
950730	2200	0.58	0.103	0.103	9.71	9.71	-38.0	-36.0	-36.9	18.3	17.5	18.2	0.32
950731	0100	0.57	0.093	0.093	10.72	10.72	-36.0	-36.0	-37.5	20.9	19.9	18.1	0.21
950731	0400	0.57	0.113	0.103	8.87	9.71	-36.0	-36.0	-33.4	21.0	20.0	20.6	0.22
950731	0700	0.61	0.103	0.103	9.71	9.71	-36.0	-36.0	-37.3	22.3	22.7	16.8	0.35
950731	1000	0.61	0.103	0.103	9.71	9.71	-38.0	-38.0	-37.6	24.5	24.2	21.0	0.36
950731	1300	0.65	0.103	0.103	9.71	9.71	-38.0	-38.0	-30.9	22.5	22.8	20.5	0.23
950731	1600	0.69	0.113	0.103	8.87	9.71	-32.0	-36.0	-33.5	22.8	22.4	28.5	0.20
950731	1900	0.68	0.113	0.113	8.87	8.87	-36.0	-36.0	-34.7	23.5	24.1	18.4	0.34
950731	2200	0.66	0.103	0.103	9.71	9.71	-20.0	-38.0	-28.5	25.9	26.4	22.5	0.39
950801	0100	0.66	0.103	0.103	9.71	9.71	-22.0	-20.0	-24.8	24.5	24.4	19.8	0.28
950801	0400	0.66	0.103	0.103	9.71	9.71	-38.0	-36.0	-29.4	24.2	24.8	27.8	0.18

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	χ
950801	0700	0.66	0.113	0.093	8.87	10.72	-38.0	-36.0	-31.7	25.1	24.7	22.6	0.33
950801	1000	0.63	0.103	0.093	9.71	10.72	-36.0	-36.0	-32.0	25.5	24.5	25.7	0.42
950801	1300	0.64	0.113	0.103	8.87	9.71	-36.0	-36.0	-31.9	24.0	24.1	20.6	0.27
950801	1600	0.65	0.113	0.113	8.87	8.87	-36.0	-36.0	-24.7	25.4	25.0	26.0	0.20
950801	1900	0.67	0.113	0.113	8.87	8.87	-36.0	-36.0	-33.1	25.1	24.5	20.9	0.29
950801	2200	0.65	0.113	0.093	8.87	10.72	-38.0	-38.0	-33.2	26.3	25.6	25.3	0.36
950802	0100	0.59	0.113	0.093	8.87	10.72	-38.0	-38.0	-31.6	25.6	24.1	27.1	0.28
950802	0400	0.58	0.123	0.093	8.16	10.72	-34.0	-36.0	-36.8	21.9	21.8	25.5	0.17
950802	0700	0.64	0.123	0.093	8.16	10.72	-36.0	-36.0	-35.3	22.4	21.3	27.5	0.31
950802	1000	0.70	0.064	0.064	15.63	15.63	-28.0	-28.0	-33.5	22.1	20.8	8.5	0.44
950802	1300	0.67	0.064	0.064	15.63	15.63	-28.0	-28.0	-32.0	20.1	19.9	3.7	0.36
950802	1600	0.68	0.074	0.074	13.56	13.56	-24.0	-28.0	-31.7	18.8	18.9	11.4	0.24
950802	1900	0.61	0.074	0.083	13.56	11.98	-22.0	-36.0	-35.8	22.7	20.8	23.6	0.26
950802	2200	0.59	0.132	0.083	7.56	11.98	-38.0	-38.0	-40.5	25.3	22.8	27.3	0.33
950803	0100	0.54	0.123	0.093	8.16	10.72	-38.0	-38.0	-39.4	25.9	21.8	25.4	0.29
950803	0400	0.51	0.123	0.103	8.16	9.71	-38.0	-36.0	-34.1	25.0	21.6	24.4	0.16
950803	0700	0.53	0.132	0.103	7.56	9.71	-38.0	-36.0	-38.8	26.4	22.6	26.0	0.18
950803	1000	0.54	0.113	0.103	8.87	9.71	-38.0	-38.0	-34.5	28.7	23.0	23.2	0.29
950803	1300	0.52	0.132	0.103	7.56	9.71	-40.0	-38.0	-39.6	29.2	21.4	27.0	0.28
950803	1600	0.47	0.123	0.113	8.16	8.87	-38.0	-38.0	-39.5	27.3	21.1	20.4	0.20
950803	1900	0.49	0.123	0.093	8.16	10.72	-34.0	-38.0	-38.4	25.1	20.0	24.5	0.19
950803	2200	0.50	0.142	0.093	7.04	10.72	-40.0	-38.0	-40.9	27.4	20.6	27.7	0.24
950804	0100	0.49	0.132	0.093	7.56	10.72	-38.0	-38.0	-39.4	28.2	20.2	25.1	0.23
950804	0400	0.46	0.142	0.093	7.04	10.72	-38.0	-36.0	-38.9	27.8	19.8	22.3	0.16
950804	0700	0.46	0.132	0.093	7.56	10.72	-38.0	-38.0	-38.4	26.8	19.6	25.6	0.15
950804	1000	0.47	0.152	0.093	6.59	10.72	-40.0	-38.0	-37.7	28.9	22.1	30.6	0.25
950804	1300	0.44	0.093	0.093	10.72	10.72	-14.0	-38.0	-32.6	29.3	20.8	24.3	0.33
950804	1600	0.45	0.318	0.093	3.15	10.72	-46.0	-32.0	-37.6	28.1	21.2	28.0	0.27
950804	1900	0.46	0.289	0.093	3.47	10.72	-60.0	-58.0	-37.6	34.1	18.5	27.8	0.19
950804	2200	0.43	0.152	0.093	6.59	10.72	-42.0	-60.0	-37.7	34.8	18.5	28.6	0.26
950805	0100	0.38	0.093	0.093	10.72	10.72	-24.0	-34.0	-38.0	29.2	20.2	29.7	0.30
950805	0400	0.34	0.103	0.093	9.71	10.72	-16.0	-34.0	-29.8	27.1	20.4	26.6	0.27
950805	0700	0.32	0.103	0.093	9.71	10.72	-34.0	-34.0	-29.8	28.4	22.4	29.6	0.19
950805	1000	0.34	0.093	0.093	10.72	10.72	-30.0	-34.0	-33.3	28.4	25.0	23.3	0.35
950805	1300	0.36	0.093	0.093	10.72	10.72	-36.0	-36.0	-37.9	28.9	24.2	26.5	0.46
950805	1600	0.37	0.103	0.093	9.71	10.72	-34.0	-34.0	-33.2	26.5	21.0	21.3	0.38
950805	1900	0.38	0.103	0.093	9.71	10.72	-34.0	-34.0	-38.5	26.9	19.0	25.7	0.21
950805	2200	0.35	0.093	0.093	10.72	10.72	-32.0	-34.0	-36.3	24.5	21.2	27.1	0.31
950806	0100	0.35	0.103	0.093	9.71	10.72	-32.0	-32.0	-31.6	25.5	23.8	24.4	0.43
950806	0400	0.34	0.093	0.093	10.72	10.72	-22.0	-34.0	-32.7	25.7	25.0	22.0	0.42
950806	0700	0.33	0.093	0.093	10.72	10.72	-24.0	-36.0	-32.4	28.0	24.5	26.4	0.24
950806	1000	0.39	0.093	0.103	10.72	9.71	-34.0	-32.0	-37.9	30.2	20.7	21.3	0.32
950806	1300	0.41	0.103	0.103	9.71	9.71	-36.0	-36.0	-40.3	31.1	19.3	19.6	0.48
950806	1600	0.43	0.103	0.103	9.71	9.71	-36.0	-36.0	-43.1	29.7	17.9	17.9	0.42
950806	1900	0.46	0.103	0.103	9.71	9.71	-32.0	-38.0	-8.5	68.0	36.0	21.9	0.21
950806	2200	0.46	0.103	0.103	9.71	9.71	-30.0	-38.0	-14.6	56.6	31.3	28.1	0.25
950807	0100	1.21	0.210	0.210	4.75	4.75	46.0	46.0	38.5	19.9	17.5	7.9	0.21
950807	0400	1.95	0.152	0.152	6.59	6.59	36.0	38.0	37.5	18.5	16.4	12.6	0.21
950807	0700	2.26	0.132	0.132	7.56	7.56	28.0	24.0	27.8	20.7	19.8	16.6	0.16
950807	1000	2.19	0.132	0.132	7.56	7.56	18.0	20.0	25.4	25.3	22.6	17.0	0.16
950807	1300	2.27	0.113	0.113	8.87	8.87	14.0	14.0	29.7	27.0	21.6	15.4	0.20
950807	1600	2.24	0.113	0.103	8.87	9.71	16.0	16.0	27.8	24.8	20.6	19.8	0.19
950807	1900	2.39	0.093	0.093	10.72	10.72	16.0	14.0	22.9	24.2	22.3	17.7	0.16
950807	2200	2.41	0.093	0.103	10.72	9.71	12.0	12.0	17.8	22.4	22.1	18.5	0.13

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950808	0100	2.36	0.103	0.103	9.71	9.71	14.0	12.0	19.6	25.0	24.0	16.4	0.12
950808	0400	2.33	0.093	0.083	10.72	11.98	12.0	10.0	16.7	26.3	24.6	19.5	0.13
950808	0700	2.20	0.083	0.083	11.98	11.98	6.0	8.0	12.7	27.1	26.6	24.6	0.09
950808	1000	2.24	0.083	0.083	11.98	11.98	4.0	2.0	3.4	26.3	27.3	20.5	0.09
950808	1300	2.44	0.093	0.093	10.72	10.72	4.0	4.0	4.3	25.4	26.9	22.3	0.09
950808	1600	2.25	0.093	0.093	10.72	10.72	6.0	4.0	10.4	30.7	30.8	24.1	0.12
950808	1900	2.20	0.093	0.093	10.72	10.72	2.0	4.0	8.9	30.5	29.9	21.4	0.09
950808	2200	2.12	0.093	0.083	10.72	11.98	6.0	2.0	3.1	26.1	27.4	20.0	0.09
950809	0100	1.97	0.093	0.093	10.72	10.72	-2.0	2.0	1.4	26.2	26.5	19.9	0.08
950809	0400	1.86	0.093	0.093	10.72	10.72	6.0	4.0	3.3	27.9	28.2	23.4	0.12
950809	0700	1.68	0.083	0.083	11.98	11.98	6.0	0.0	5.3	26.2	28.2	20.3	0.12
950809	1000	1.65	0.093	0.093	10.72	10.72	8.0	-2.0	4.8	26.2	28.4	21.5	0.10
950809	1300	1.61	0.093	0.093	10.72	10.72	2.0	4.0	3.3	27.5	30.2	20.0	0.10
950809	1600	1.58	0.083	0.083	11.98	11.98	4.0	4.0	2.3	27.2	30.9	15.2	0.17
950809	1900	1.44	0.083	0.083	11.98	11.98	6.0	4.0	-1.9	27.8	31.4	14.1	0.15
950809	2200	1.31	0.083	0.083	11.98	11.98	6.0	6.0	4.8	27.0	30.4	20.0	0.13
950810	0100	1.30	0.083	0.083	11.98	11.98	4.0	0.0	-2.1	28.8	33.9	18.4	0.12
950810	0400	1.26	0.083	0.083	11.98	11.98	6.0	4.0	-2.7	33.6	36.2	16.0	0.14
950810	0700	1.16	0.083	0.083	11.98	11.98	6.0	4.0	-6.1	34.4	36.5	20.7	0.15
950810	1000	1.07	0.083	0.093	11.98	10.72	2.0	2.0	0.6	31.9	35.8	21.2	0.15
950810	1300	1.15	0.103	0.093	9.71	10.72	-2.0	-2.0	-10.3	33.3	32.5	19.6	0.11
950810	1600	1.11	0.093	0.093	10.72	10.72	-2.0	-2.0	-16.7	37.9	34.8	18.9	0.14
950810	1900	0.99	0.093	0.093	10.72	10.72	-2.0	-4.0	-20.3	41.5	37.1	22.6	0.15
950810	2200	1.00	0.093	0.093	10.72	10.72	8.0	2.0	-24.2	45.3	35.5	24.8	0.14
950811	0100	1.17	0.210	0.093	4.75	10.72	-44.0	-46.0	-29.1	42.0	32.8	22.2	0.11
950811	0400	1.25	0.162	0.162	6.19	6.19	-44.0	-44.0	-31.9	43.7	37.4	33.2	0.11
950811	0700	1.13	0.152	0.162	6.59	6.19	-40.0	0.0	-21.4	45.3	39.6	33.1	0.12
950811	1000	1.39	0.191	0.181	5.24	5.52	-8.0	-8.0	0.4	37.1	32.2	25.8	0.09
950811	1300	1.43	0.162	0.162	6.19	6.19	-12.0	-12.0	-8.9	23.3	24.5	13.4	0.08
950811	1600	1.39	0.171	0.152	5.83	6.59	-14.0	-12.0	-6.4	24.6	25.7	22.9	0.08
950811	1900	1.20	0.142	0.171	7.04	5.83	-12.0	-10.0	-3.9	28.3	29.9	32.2	0.13
950811	2200	1.08	0.123	0.123	8.16	8.16	-10.0	-10.0	0.0	27.8	25.8	15.7	0.12
950812	0100	0.90	0.132	0.132	7.56	7.56	-8.0	-8.0	-0.6	26.6	24.3	16.0	0.11
950812	0400	0.86	0.152	0.152	6.59	6.59	-36.0	-8.0	-10.5	30.7	28.4	29.5	0.11
950812	0700	0.74	0.142	0.152	7.04	6.59	-34.0	-4.0	-6.7	34.3	28.9	30.0	0.14
950812	1000	0.65	0.113	0.103	8.87	9.71	-14.0	-8.0	-10.2	30.0	23.3	25.4	0.16
950812	1300	0.57	0.142	0.142	7.04	7.04	-20.0	-16.0	-11.5	26.4	21.7	15.7	0.15
950812	1600	0.59	0.132	0.132	7.56	7.56	-14.0	-14.0	-15.1	25.3	21.1	13.8	0.19
950812	1900	0.56	0.132	0.123	7.56	8.16	-12.0	-12.0	-13.4	27.2	24.0	16.6	0.26
950812	2200	0.51	0.132	0.123	7.56	8.16	-6.0	-8.0	-15.2	28.5	25.5	14.1	0.23
950813	0100	0.51	0.064	0.064	15.63	15.63	-22.0	-20.0	-12.5	24.4	23.5	12.2	0.26
950813	0400	0.56	0.064	0.064	15.63	15.63	-20.0	-20.0	-18.3	20.6	22.2	11.2	0.24
950813	0700	0.59	0.064	0.064	15.63	15.63	-22.0	-20.0	-21.0	23.0	23.7	16.7	0.26
950813	1000	0.69	0.064	0.064	15.63	15.63	-20.0	-20.0	-19.8	19.0	23.0	16.3	0.35
950813	1300	0.76	0.064	0.064	15.63	15.63	-20.0	-20.0	-21.9	19.0	21.3	16.2	0.23
950813	1600	0.93	0.074	0.074	13.56	13.56	-26.0	-24.0	-23.6	17.5	19.7	13.6	0.20
950813	1900	0.99	0.074	0.074	13.56	13.56	-16.0	-18.0	-17.4	20.1	21.3	20.4	0.28
950813	2200	1.39	0.074	0.064	13.56	15.63	-18.0	-18.0	-16.1	18.6	19.7	19.2	0.22
950814	0100	1.50	0.064	0.064	15.63	15.63	-18.0	-20.0	-22.1	19.4	19.9	17.6	0.19
950814	0400	1.54	0.064	0.064	15.63	15.63	-16.0	-20.0	-17.8	19.2	20.2	19.5	0.17
950814	0700	1.46	0.074	0.074	13.56	13.56	-20.0	-18.0	-16.6	23.2	23.4	19.5	0.20
950814	1000	1.50	0.064	0.074	15.63	13.56	-20.0	-20.0	-20.1	22.0	23.2	19.0	0.22
950814	1300	1.55	0.064	0.064	15.63	15.63	-20.0	-20.0	-17.5	20.8	21.4	21.5	0.21
950814	1600	1.50	0.074	0.064	13.56	15.63	-38.0	-20.0	-21.1	24.3	24.6	27.5	0.17

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950814	1900	1.59	0.074	0.064	13.56	15.63	-36.0	-20.0	-21.4	22.9	22.6	20.2	0.18
950814	2200	1.57	0.064	0.074	15.63	13.56	-18.0	-18.0	-16.5	23.8	24.1	24.5	0.20
950815	0100	1.36	0.074	0.074	13.56	13.56	-18.0	-20.0	-16.8	25.1	25.3	26.2	0.19
950815	0400	1.41	0.074	0.074	13.56	13.56	-18.0	-18.0	-12.2	26.5	25.9	23.5	0.16
950815	0700	1.50	0.064	0.064	15.63	15.63	-22.0	-22.0	-13.4	27.7	25.3	21.3	0.18
950815	1000	1.66	0.074	0.064	13.56	15.63	-20.0	-20.0	-10.6	30.9	25.4	20.6	0.18
950815	1300	1.79	0.064	0.064	15.63	15.63	-22.0	-22.0	-10.2	28.1	20.8	12.2	0.15
950815	1600	1.97	0.074	0.074	13.56	13.56	-20.0	-20.0	-6.1	28.5	22.4	9.6	0.12
950815	1900	2.24	0.074	0.074	13.56	13.56	-22.0	-22.0	-3.7	29.3	23.6	10.3	0.14
950815	2200	3.11	0.064	0.064	15.63	15.63	-20.0	-20.0	-13.7	22.5	22.5	12.7	0.15
950816	0100	3.98	0.064	0.064	15.63	15.63	-24.0	-22.0	-19.7	16.2	17.7	11.8	0.19
950816	0400	3.73	0.064	0.064	15.63	15.63	-22.0	-20.0	-17.2	18.9	21.2	13.6	0.17
950816	0700	3.77	0.074	0.074	13.56	13.56	-22.0	-18.0	-16.7	23.5	25.3	15.4	0.14
950816	1000	4.06	0.074	0.074	13.56	13.56	-20.0	-16.0	-6.3	28.5	28.2	11.5	0.14
950816	1300	4.03	0.074	0.074	13.56	13.56	-20.0	-18.0	-0.7	33.8	30.9	14.9	0.15
950816	1600	3.71	0.074	0.074	13.56	13.56	-12.0	-10.0	6.6	33.4	30.4	15.0	0.14
950816	1900	3.86	0.074	0.074	13.56	13.56	-12.0	-12.0	1.8	30.8	29.1	11.3	0.14
950816	2200	3.73	0.074	0.074	13.56	13.56	-16.0	-10.0	11.0	36.1	28.7	14.3	0.16
950817	0100	3.47	0.074	0.083	13.56	11.98	-14.0	-12.0	15.1	37.7	25.0	16.5	0.16
950817	0400	3.05	0.083	0.083	11.98	11.98	-6.0	2.0	16.9	38.2	24.9	18.1	0.18
950817	0700	2.74	0.113	0.093	8.87	10.72	8.0	8.0	21.3	33.8	22.7	23.8	0.18
950817	1000	2.65	0.113	0.093	8.87	10.72	8.0	10.0	21.3	28.9	19.8	20.4	0.18
950817	1300	2.49	0.093	0.103	10.72	9.71	8.0	8.0	21.3	29.0	20.9	18.0	0.17
950817	1600	2.19	0.093	0.093	10.72	10.72	2.0	8.0	18.0	25.6	21.1	16.6	0.15
950817	1900	2.13	0.103	0.093	9.71	10.72	10.0	10.0	15.8	21.8	20.3	19.7	0.13
950817	2200	2.20	0.093	0.093	10.72	10.72	12.0	12.0	14.0	18.8	19.4	16.8	0.11
950818	0100	2.12	0.093	0.093	10.72	10.72	18.0	12.0	13.4	19.9	20.3	19.0	0.12
950818	0400	1.95	0.074	0.093	13.56	10.72	0.0	2.0	10.3	20.3	19.7	18.2	0.12
950818	0700	1.89	0.093	0.093	10.72	10.72	16.0	10.0	11.4	20.3	19.4	16.8	0.12
950818	1000	1.93	0.074	0.083	13.56	11.98	0.0	4.0	11.1	22.3	20.2	17.9	0.14
950818	1300	1.94	0.083	0.093	11.98	10.72	12.0	12.0	12.3	23.2	21.9	17.6	0.15
950818	1600	2.05	0.083	0.083	11.98	11.98	12.0	12.0	10.5	20.9	21.0	19.4	0.14
950818	1900	2.19	0.083	0.083	11.98	11.98	12.0	2.0	10.2	23.7	22.6	18.7	0.12
950818	2200	2.08	0.093	0.083	10.72	11.98	12.0	12.0	12.7	23.8	23.6	20.8	0.12
950819	0100	2.31	0.083	0.083	11.98	11.98	10.0	10.0	9.1	23.0	23.0	20.2	0.11
950819	0400	2.67	0.074	0.074	13.56	13.56	-2.0	2.0	9.2	26.1	25.5	19.8	0.13
950819	0700	3.23	0.074	0.074	13.56	13.56	-4.0	-2.0	3.1	24.6	25.7	19.3	0.13
950819	1000	3.33	0.074	0.074	13.56	13.56	-2.0	0.0	5.6	24.5	25.6	21.6	0.14
950819	1300	3.51	0.074	0.074	13.56	13.56	-4.0	0.0	4.6	23.2	24.9	19.8	0.15
950819	1600	3.31	0.074	0.074	13.56	13.56	-6.0	6.0	6.9	24.0	24.7	20.8	0.14
950819	1900	3.12	0.074	0.074	13.56	13.56	0.0	0.0	7.9	24.3	25.0	21.3	0.13
950819	2200	2.91	0.074	0.074	13.56	13.56	0.0	4.0	6.5	24.1	25.1	20.1	0.13
950820	0100	2.45	0.074	0.074	13.56	13.56	2.0	4.0	10.4	25.3	25.3	20.2	0.14
950820	0400	2.43	0.074	0.074	13.56	13.56	6.0	6.0	9.2	22.1	22.9	16.8	0.15
950820	0700	2.53	0.074	0.074	13.56	13.56	0.0	2.0	6.0	21.0	22.4	16.9	0.11
950820	1000	2.32	0.074	0.074	13.56	13.56	2.0	6.0	11.1	25.5	25.0	18.7	0.13
950820	1300	2.27	0.074	0.083	13.56	11.98	0.0	2.0	11.1	24.7	23.2	22.9	0.15
950820	1600	2.05	0.083	0.083	11.98	11.98	8.0	4.0	9.1	26.9	25.8	26.7	0.14
950820	1900	1.99	0.083	0.083	11.98	11.98	8.0	6.0	5.7	26.1	26.2	26.2	0.12
950820	2200	2.01	0.083	0.083	11.98	11.98	6.0	2.0	5.2	22.9	23.9	21.7	0.10
950821	0100	1.84	0.093	0.083	10.72	11.98	2.0	2.0	3.9	23.8	24.4	23.4	0.11
950821	0400	1.58	0.093	0.093	10.72	10.72	2.0	2.0	6.3	25.9	26.3	22.4	0.13
950821	0700	1.46	0.083	0.093	11.98	10.72	10.0	6.0	6.2	25.8	26.1	26.0	0.11

Table A1 (Continued)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	X
950821	1000	1.33	0.093	0.093	10.72	10.72	4.0	4.0	6.1	25.4	26.1	23.3	0.11
950821	1300	1.19	0.093	0.093	10.72	10.72	12.0	12.0	7.0	26.3	26.6	23.9	0.17
950821	1600	1.13	0.103	0.103	9.71	9.71	4.0	4.0	-5.8	34.7	27.2	26.7	0.21
950821	1900	0.99	0.103	0.103	9.71	9.71	6.0	6.0	-0.6	32.3	27.9	27.3	0.19
950821	2200	0.86	0.103	0.103	9.71	9.71	4.0	4.0	-6.3	32.4	28.6	23.5	0.13
950822	0100	0.83	0.103	0.113	9.71	8.87	6.0	6.0	-7.0	32.0	29.2	30.9	0.15
950822	0400	0.69	0.113	0.113	8.87	8.87	-8.0	-10.0	-6.6	32.3	30.6	27.4	0.18
950822	0700	0.59	0.123	0.123	8.16	8.16	-10.0	-16.0	-13.2	32.2	30.6	29.7	0.17
950822	1000	0.55	0.132	0.123	7.56	8.16	-34.0	-10.0	-15.7	30.8	30.7	27.7	0.16
950822	1300	0.50	0.132	0.123	7.56	8.16	-36.0	-36.0	-23.6	32.1	29.6	27.3	0.20
950822	1600	0.47	0.123	0.113	8.16	8.87	-38.0	-36.0	-22.9	31.1	27.4	24.5	0.21
950822	1900	0.42	0.123	0.123	8.16	8.16	-38.0	-38.0	-28.7	32.2	27.7	30.2	0.26
950822	2200	0.42	0.123	0.123	8.16	8.16	-12.0	-36.0	-23.0	31.1	28.4	28.6	0.25
950823	0100	0.43	0.123	0.132	8.16	7.56	-34.0	-32.0	-31.0	33.2	28.5	28.3	0.25
950823	0400	0.43	0.123	0.123	8.16	8.16	-34.0	-36.0	-34.8	32.3	25.9	23.8	0.20
950823	0700	0.54	0.318	0.318	3.15	3.15	24.0	-36.0	-18.3	50.5	32.7	29.1	0.16
950823	1000	0.60	0.132	0.123	7.56	8.16	-34.0	-40.0	0.9	71.4	38.9	25.2	0.18
950823	1300	0.72	0.230	0.250	4.35	4.01	58.0	50.0	20.3	82.9	29.8	28.5	0.17
950823	1600	0.77	0.191	0.191	5.24	5.24	50.0	48.0	24.5	79.6	34.2	16.0	0.16
950823	1900	0.70	0.132	0.201	7.56	4.98	-40.0	-40.0	19.1	83.5	40.1	24.2	0.17
950823	2200	0.62	0.142	0.132	7.04	7.56	-44.0	-40.0	9.6	76.0	46.7	16.8	0.17
950824	0100	0.58	0.132	0.132	7.56	7.56	-38.0	-40.0	2.1	68.4	49.8	11.6	0.19
950824	0400	0.51	0.132	0.132	7.56	7.56	-38.0	-38.0	-6.3	56.3	46.5	13.7	0.19
950824	0700	0.48	0.132	0.142	7.56	7.04	-40.0	-38.0	-9.7	50.8	38.5	18.3	0.21
950824	1000	0.46	0.142	0.142	7.04	7.04	-38.0	-36.0	-13.0	44.6	34.6	16.4	0.22
950824	1300	0.46	0.142	0.142	7.04	7.04	-38.0	-36.0	-23.2	35.1	32.9	19.9	0.20
950824	1600	0.43	0.152	0.142	6.59	7.04	-42.0	-42.0	-35.9	28.3	24.6	20.6	0.21
950824	1900	0.39	0.142	0.142	7.04	7.04	-40.0	-40.0	-37.0	25.1	18.7	8.0	0.25
950824	2200	0.36	0.142	0.142	7.04	7.04	-40.0	-38.0	-36.7	25.2	18.9	11.4	0.21
950825	0100	0.34	0.142	0.142	7.04	7.04	-40.0	-40.0	-35.7	25.3	19.3	10.1	0.24
950825	0400	0.33	0.142	0.142	7.04	7.04	-40.0	-40.0	-36.7	23.6	19.4	10.7	0.24
950825	0700	0.32	0.142	0.142	7.04	7.04	-42.0	-40.0	-36.2	26.9	22.4	10.7	0.22
950825	1000	0.37	0.152	0.152	6.59	6.59	-44.0	-40.0	-15.1	50.8	23.0	15.8	0.29
950825	1300	1.03	0.201	0.220	4.98	4.54	52.0	52.0	38.2	39.4	29.6	19.9	0.17
950825	1600	1.24	0.171	0.181	5.83	5.52	36.0	32.0	26.6	32.6	30.7	18.6	0.12
950825	1900	1.28	0.171	0.171	5.83	5.83	38.0	38.0	25.4	38.6	34.4	17.5	0.11
950825	2200	1.09	0.171	0.171	5.83	5.83	26.0	26.0	10.9	45.4	36.8	18.4	0.10
950826	0100	1.07	0.162	0.162	6.19	6.19	28.0	28.0	6.7	47.0	36.8	17.2	0.11
950826	0400	1.05	0.171	0.152	5.83	6.59	32.0	30.0	10.5	51.5	37.4	33.2	0.11
950826	0700	1.00	0.113	0.162	8.87	6.19	-36.0	-34.0	5.9	58.0	46.6	50.0	0.11
950826	1000	1.04	0.113	0.113	8.87	8.87	-4.0	-36.0	-7.1	57.1	53.6	27.4	0.12
950826	1300	1.09	0.123	0.123	8.16	8.16	-34.0	-36.0	-38.2	43.5	42.3	28.8	0.14
950826	1600	1.17	0.113	0.191	8.87	5.24	-36.0	-40.0	-40.0	32.8	29.7	26.7	0.18
950826	1900	1.05	0.230	0.181	4.35	5.52	-48.0	-42.0	-39.9	33.7	31.1	31.4	0.19
950826	2200	0.88	0.113	0.142	8.87	7.04	-38.0	-40.0	-33.8	32.4	28.5	21.9	0.18
950827	0100	0.81	0.113	0.113	8.87	8.87	-32.0	-34.0	-31.1	31.3	30.6	17.9	0.13
950827	0400	0.84	0.103	0.103	9.71	9.71	-36.0	-36.0	-34.2	30.3	27.8	18.0	0.13
950827	0700	0.81	0.103	0.113	9.71	8.87	-22.0	-34.0	-33.1	30.6	29.9	24.1	0.16
950827	1000	0.76	0.103	0.103	9.71	9.71	-24.0	-32.0	-33.7	27.1	27.2	14.6	0.15
950827	1300	0.75	0.103	0.103	9.71	9.71	-36.0	-34.0	-36.0	24.9	24.3	19.2	0.14
950827	1600	0.77	0.083	0.083	11.98	11.98	-24.0	-32.0	-34.3	24.8	22.7	18.9	0.16
950827	1900	0.84	0.171	0.083	5.83	11.98	-46.0	-46.0	-33.8	26.5	22.2	20.9	0.17
950827	2200	0.81	0.093	0.093	10.72	10.72	-20.0	-36.0	-33.4	25.3	25.0	16.4	0.18

Table A1 (Concluded)

Date	Time EST	H_{mo} m	$f_{p,FD}$ Hz	$f_{p,IFS}$ Hz	$T_{p,FD}$ sec	$T_{p,IFS}$ sec	$\theta_{p,FD}$ deg	$\theta_{p,IDS}$ deg	$\theta_{p,SW}$ deg	$\Delta\theta_{IDS}$ deg	$\Delta\theta_{SW}$ deg	$\Delta\theta_{FDP}$ deg	χ
950828	0100	0.86	0.083	0.083	11.98	11.98	-18.0	-30.0	-30.0	24.4	26.6	18.6	0.15
950828	0400	1.03	0.083	0.083	11.98	11.98	-18.0	-26.0	-22.3	33.3	31.0	21.3	0.17
950828	0700	1.35	0.083	0.220	11.98	4.54	-20.0	-22.0	-22.1	31.5	29.2	34.3	0.15
950828	1000	1.78	0.152	0.181	6.59	5.52	-30.0	-26.0	-6.7	44.1	34.1	42.2	0.11
950828	1300	1.95	0.142	0.142	7.04	7.04	-30.0	-32.0	1.5	55.3	33.4	12.4	0.12
950828	1600	2.33	0.142	0.152	7.04	6.59	-28.0	34.0	10.8	51.7	36.5	52.9	0.13
950828	1900	2.53	0.152	0.152	6.59	6.59	18.0	20.0	18.5	36.1	27.9	22.7	0.15
950828	2200	2.30	0.142	0.142	7.04	7.04	14.0	16.0	24.6	35.1	27.9	24.4	0.15
950829	0100	1.95	0.132	0.142	7.56	7.04	16.0	18.0	21.1	37.9	30.1	27.1	0.13
950829	0400	1.90	0.142	0.142	7.04	7.04	12.0	18.0	19.3	40.1	28.8	23.7	0.12
950829	0700	1.88	0.142	0.132	7.04	7.56	20.0	38.0	26.2	42.6	27.5	27.4	0.17
950829	1000	1.87	0.123	0.142	8.16	7.04	0.0	32.0	24.9	39.8	24.1	22.8	0.20
950829	1300	1.76	0.142	0.142	7.04	7.04	8.0	8.0	18.8	34.8	23.2	17.9	0.16
950829	1600	1.73	0.142	0.142	7.04	7.04	6.0	4.0	15.2	34.4	25.5	17.5	0.15
950829	1900	1.69	0.113	0.113	8.87	8.87	0.0	0.0	11.7	33.3	27.3	17.4	0.13
950829	2200	1.55	0.074	0.074	13.56	13.56	-22.0	2.0	8.7	33.3	26.3	14.5	0.13
950830	0100	1.42	0.093	0.093	10.72	10.72	0.0	-4.0	4.7	28.0	25.6	20.7	0.12
950830	0400	1.31	0.074	0.093	13.56	10.72	-12.0	0.0	6.6	28.6	26.1	22.1	0.10
950830	0700	1.26	0.103	0.083	9.71	11.98	2.0	2.0	4.5	30.4	27.1	28.9	0.13
950830	1000	1.19	0.083	0.083	11.98	11.98	-10.0	-2.0	1.8	30.0	28.0	21.9	0.14
950830	1300	1.14	0.083	0.083	11.98	11.98	-4.0	-2.0	0.5	27.3	27.3	25.1	0.14
950830	1600	1.11	0.093	0.093	10.72	10.72	-12.0	-2.0	-5.7	26.6	26.6	22.1	0.13
950830	1900	1.11	0.074	0.083	13.56	11.98	-20.0	0.0	-6.6	27.6	27.3	26.3	0.12
950830	2200	1.08	0.074	0.074	13.56	13.56	-8.0	-2.0	-3.8	27.5	26.6	17.5	0.15
950831	0100	1.04	0.074	0.083	13.56	11.98	-12.0	-2.0	-2.3	26.8	27.5	26.6	0.14
950831	0400	1.05	0.083	0.083	11.98	11.98	-12.0	-2.0	-0.3	28.4	29.4	27.8	0.12
950831	0700	1.06	0.083	0.083	11.98	11.98	-10.0	-6.0	1.0	32.0	30.8	25.2	0.13
950831	1000	1.03	0.083	0.083	11.98	11.98	-8.0	-2.0	-4.2	34.6	31.6	27.2	0.17
950831	1300	1.01	0.093	0.083	10.72	11.98	-12.0	-8.0	-7.7	32.9	30.9	30.3	0.16
950831	1600	0.99	0.083	0.083	11.98	11.98	-6.0	-8.0	-8.9	30.4	28.1	27.8	0.15
950831	1900	0.99	0.083	0.083	11.98	11.98	-6.0	-10.0	-9.6	31.1	28.9	31.4	0.15
950831	2200	0.89	0.083	0.083	11.98	11.98	-20.0	-18.0	-21.6	30.7	28.9	28.7	0.19

Appendix B
Time Series Graphs of Bulk Parameters

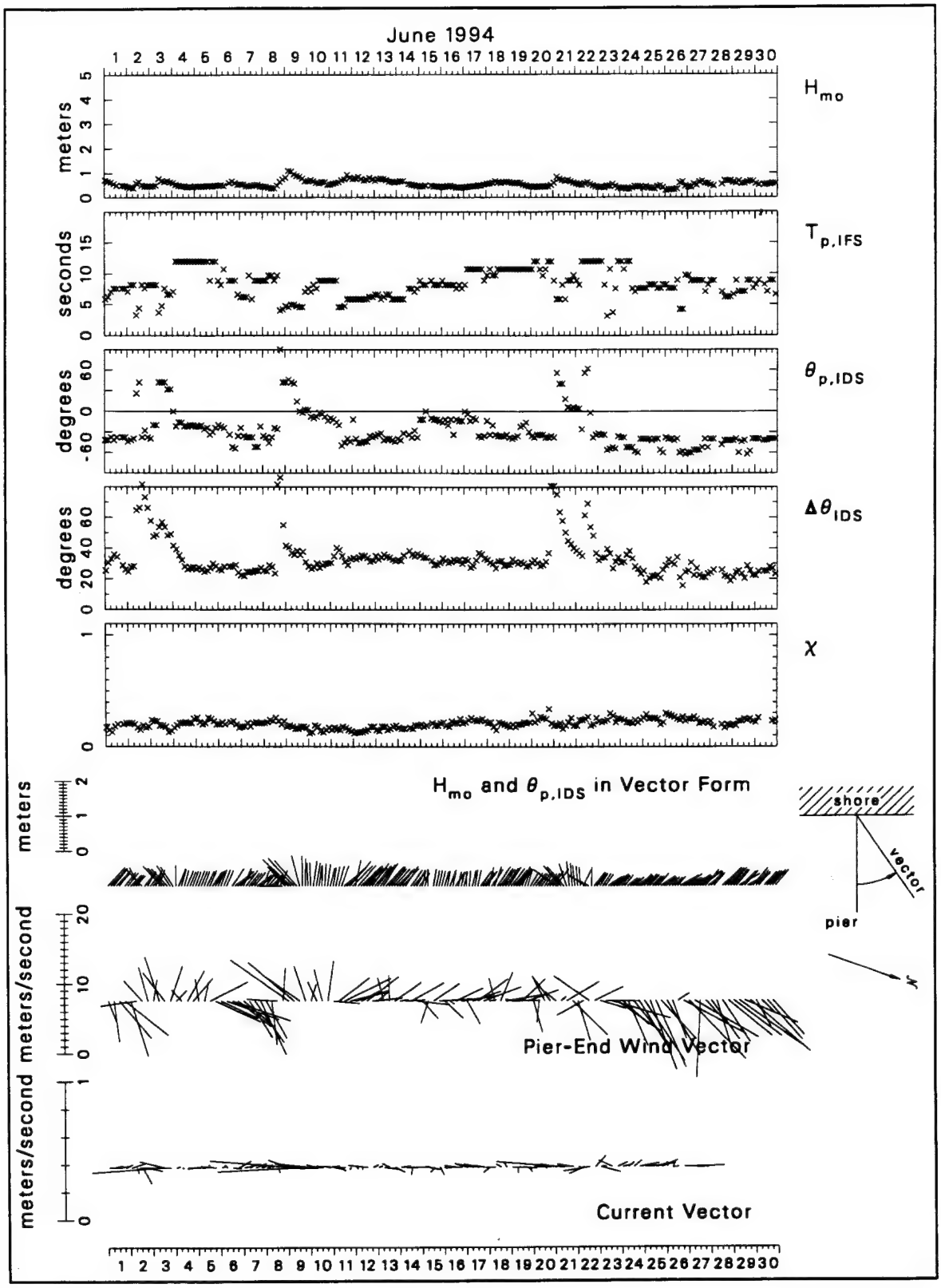

Figure B1. Bulk data for June 1994

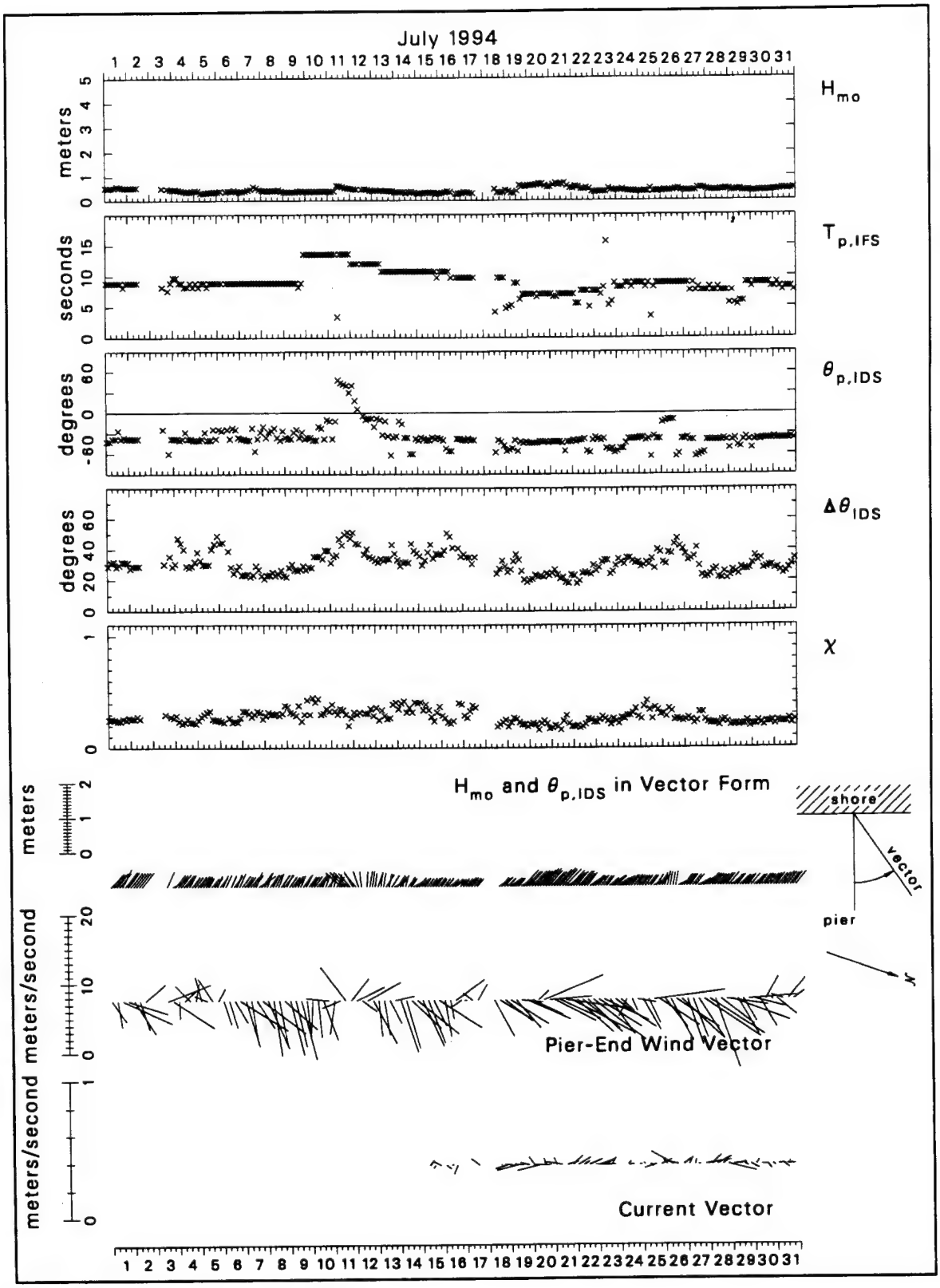

Figure B2. Bulk data for July 1994

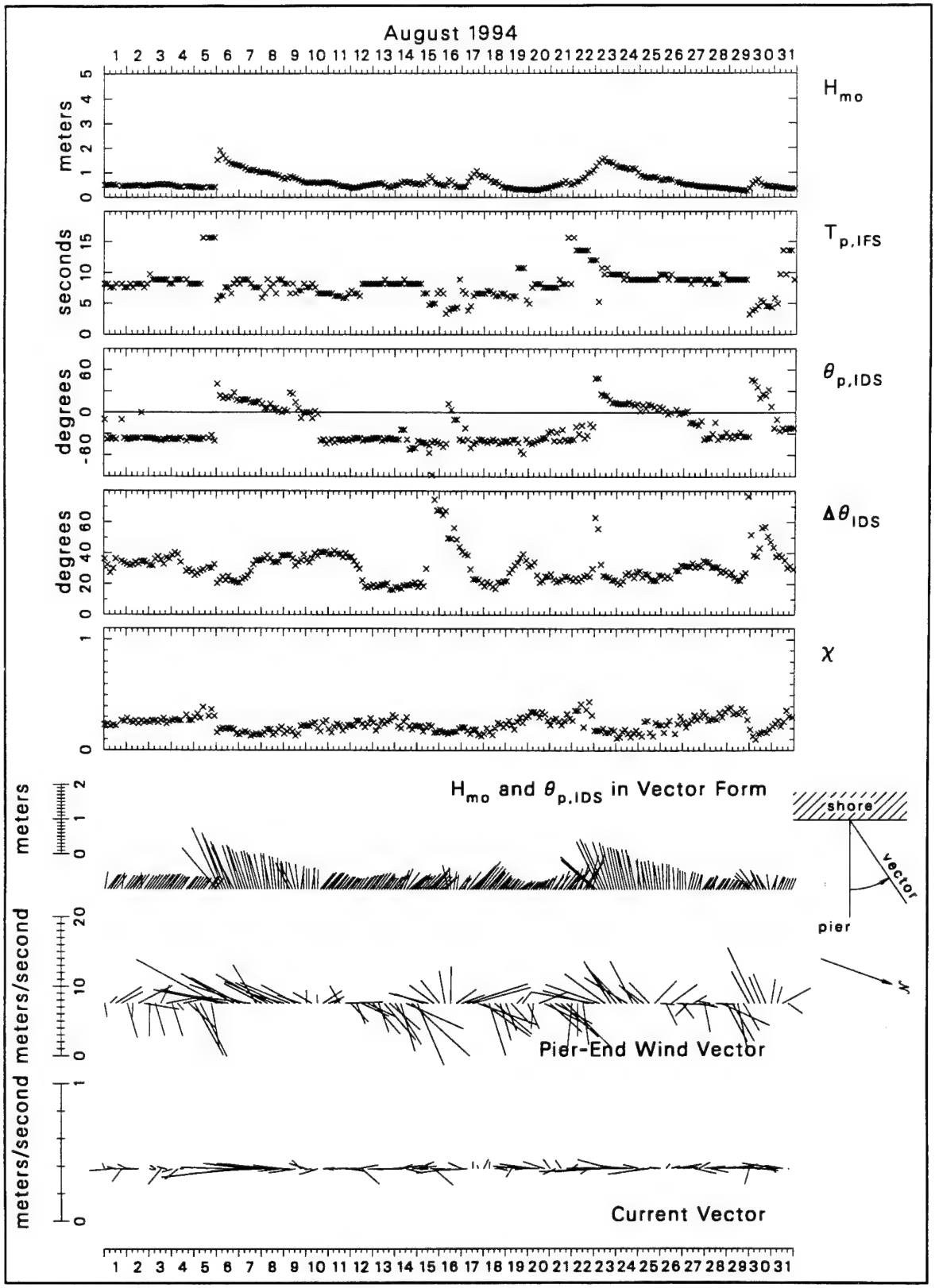

Figure B3. Bulk data for August 1994

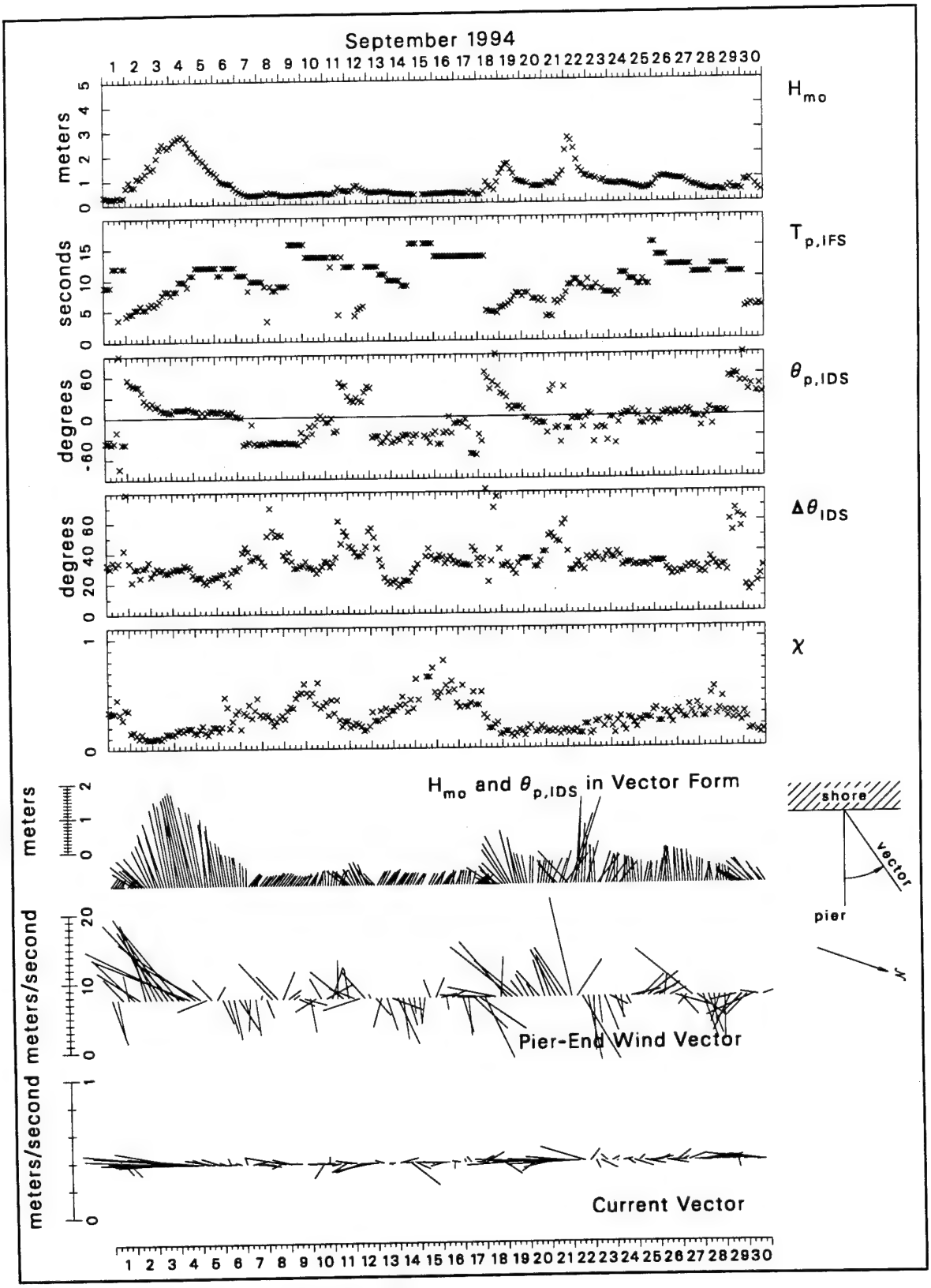

Figure B4. Bulk data for September 1994

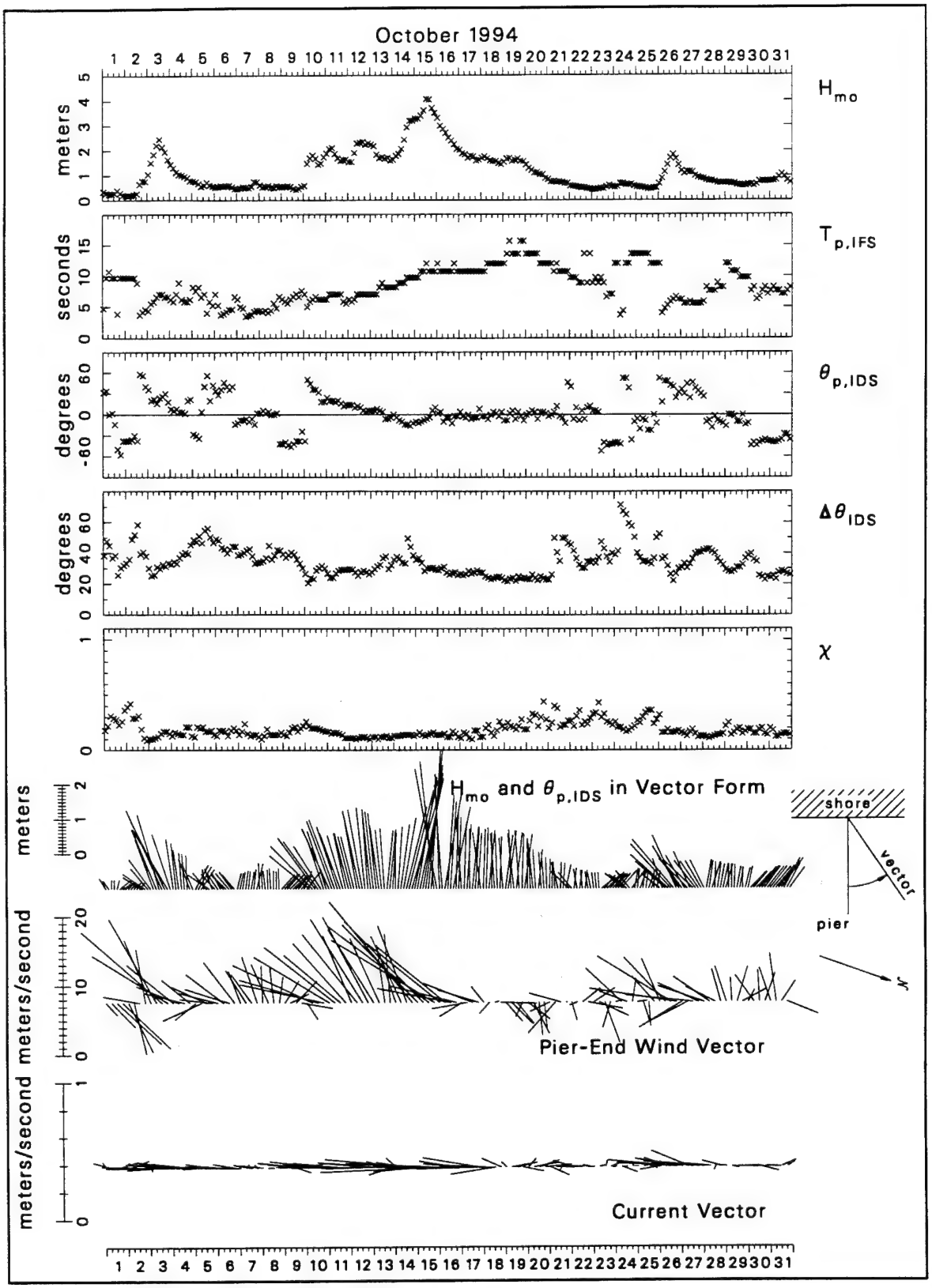

Figure B5. Bulk data for October 1994

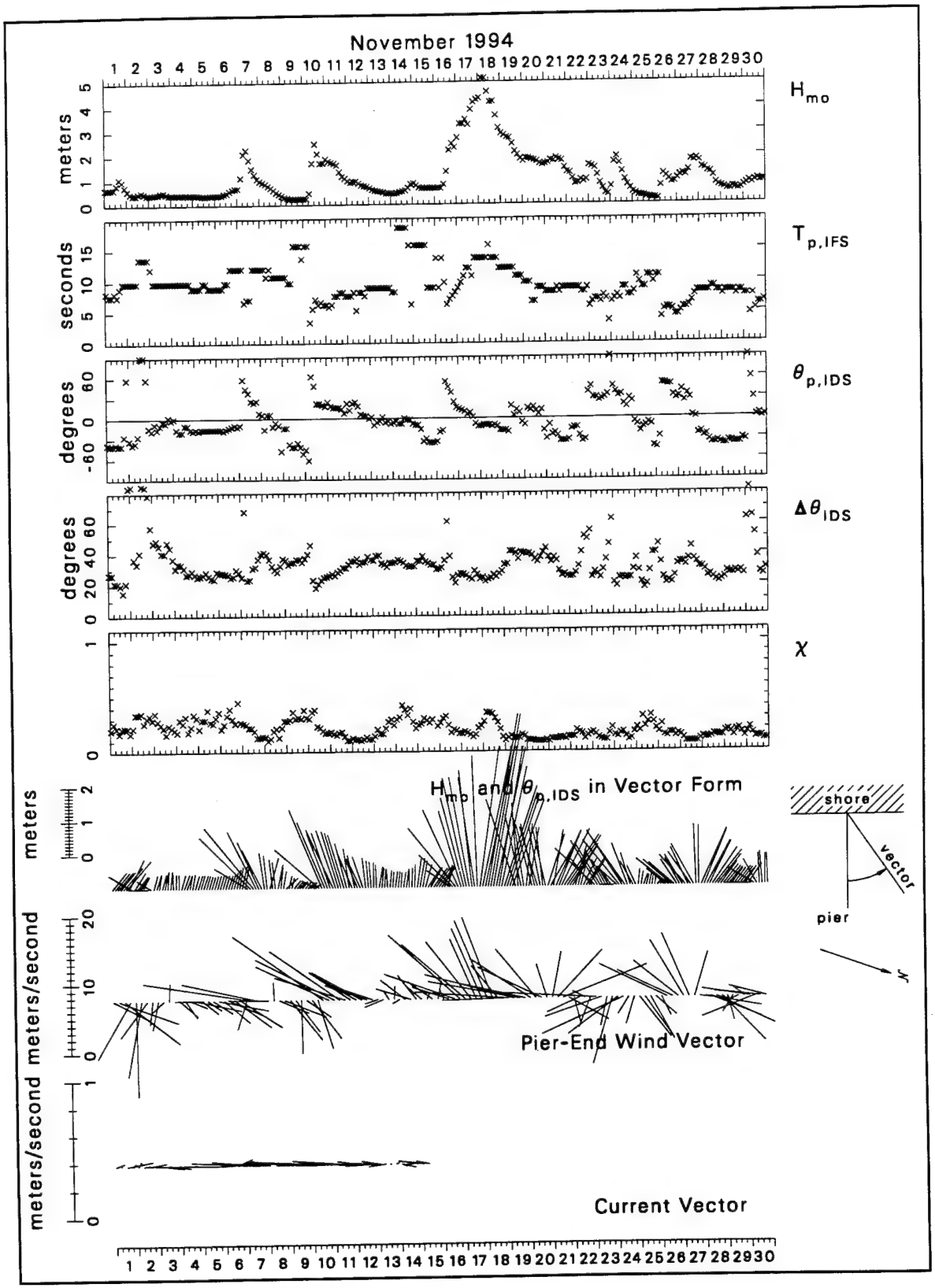

Figure B6. Bulk data for November 1994

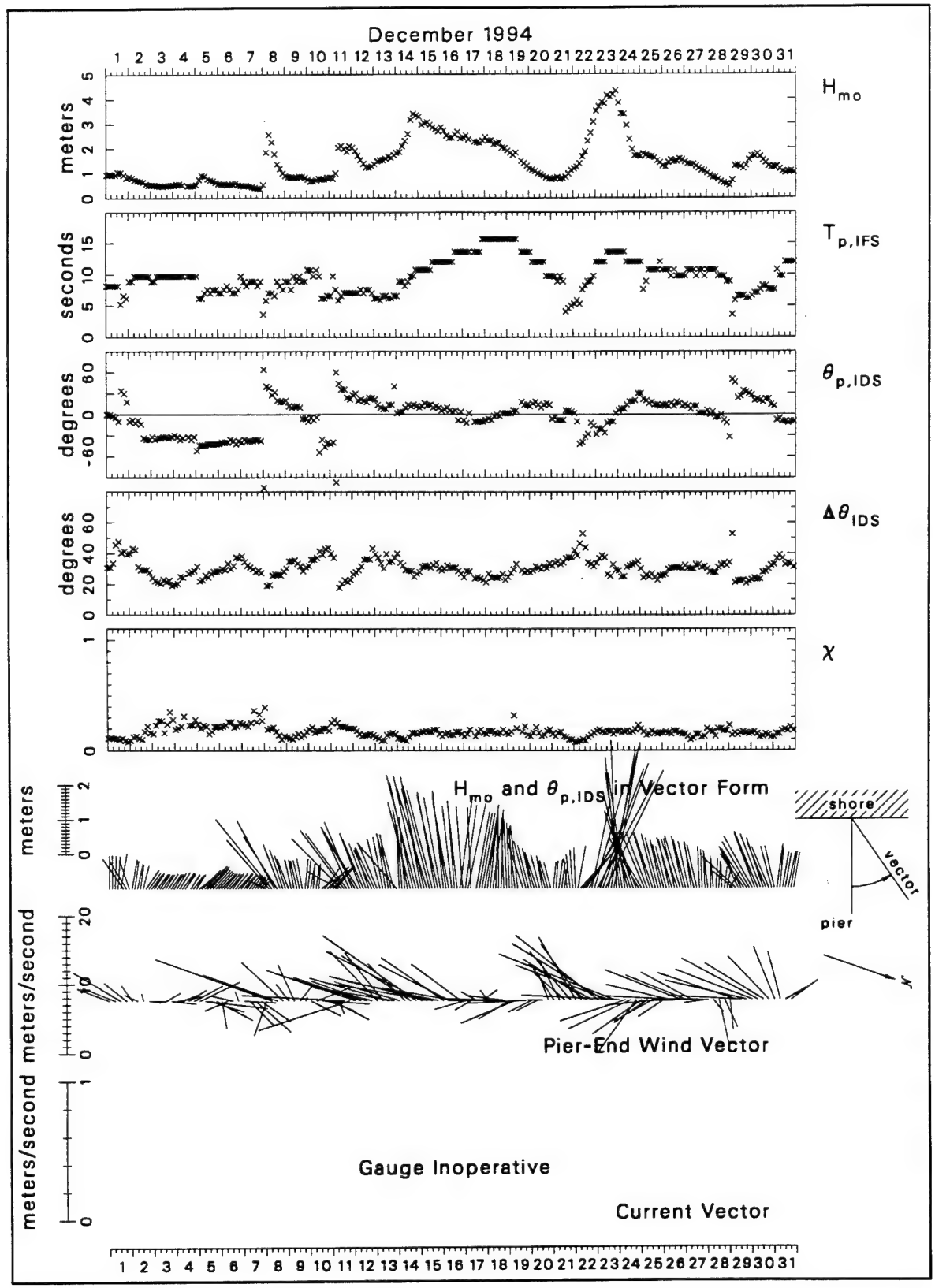

Figure B7. Bulk data for December 1994

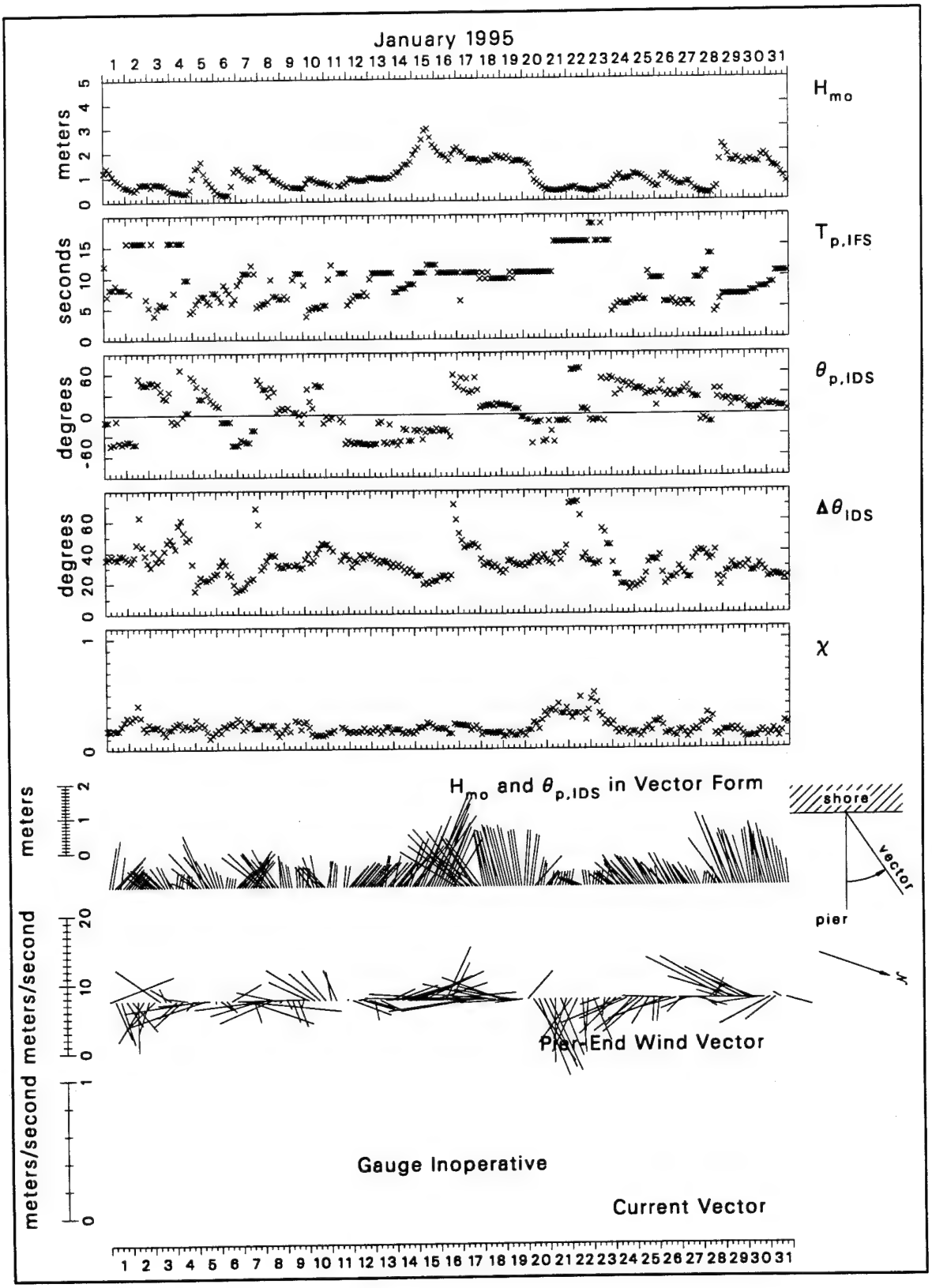

Figure B8. Bulk data for January 1995

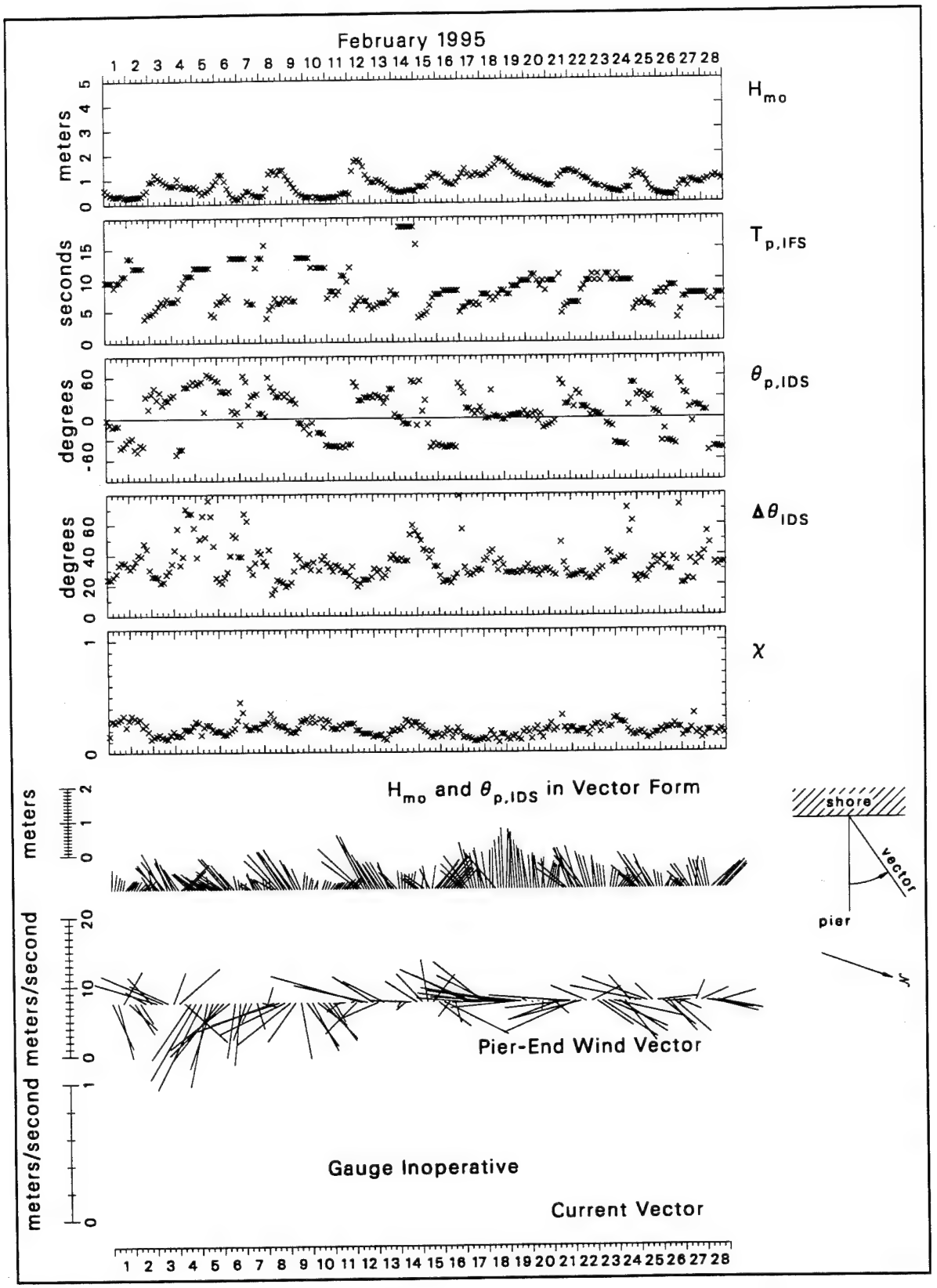

Figure B9. Bulk data for February 1995

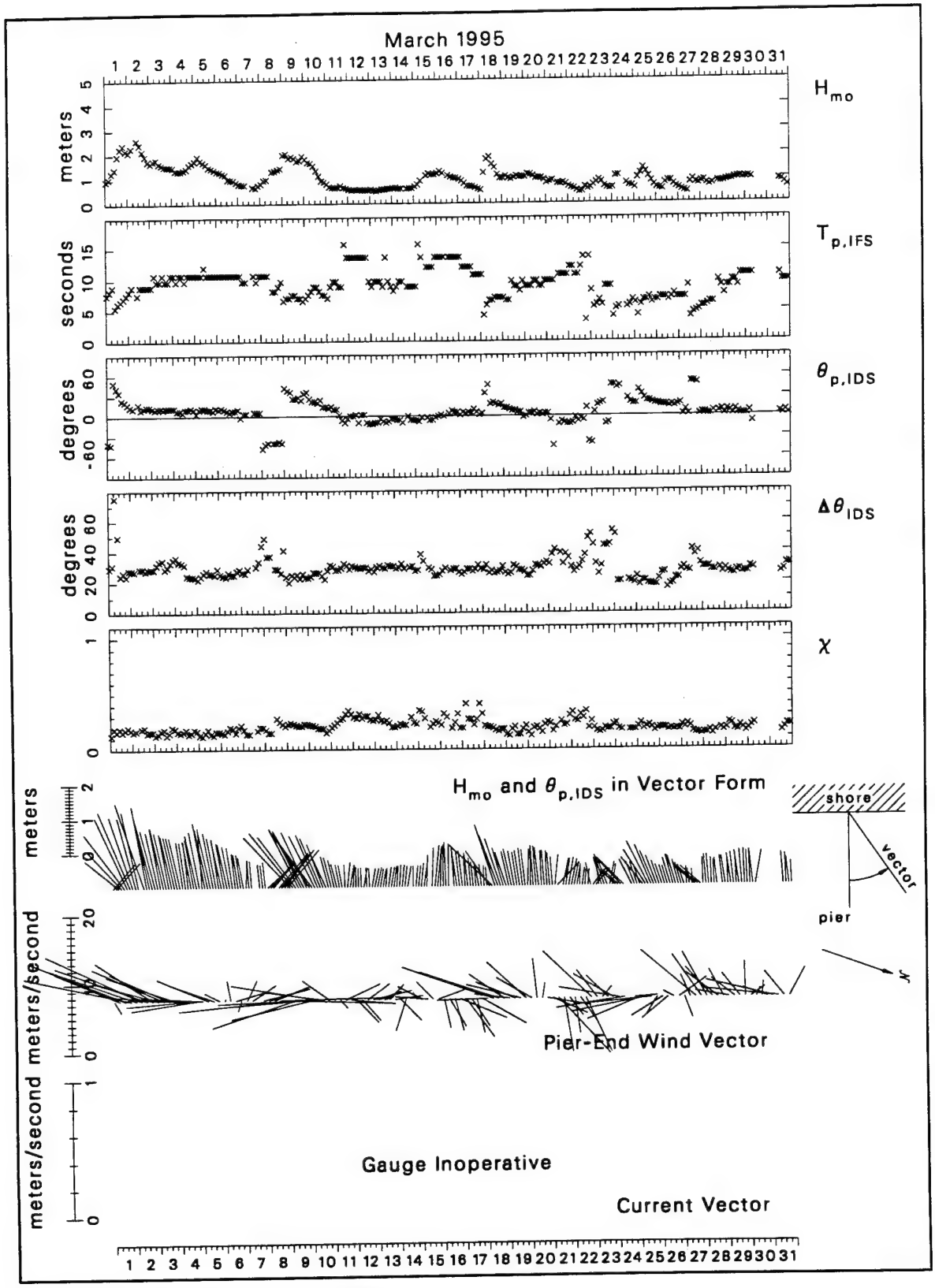

Figure B10. Bulk data for March 1995

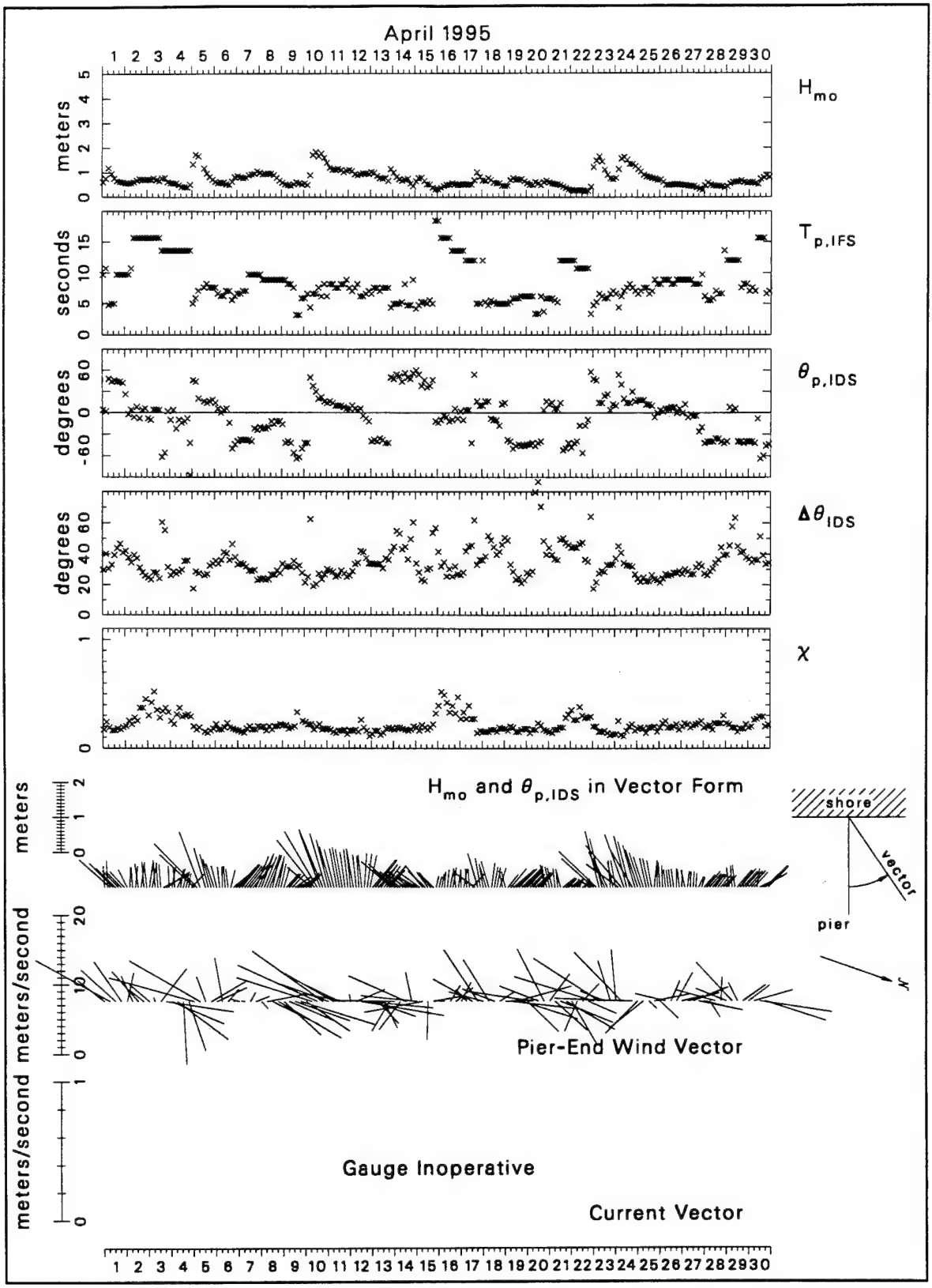

Figure B11. Bulk data for April 1995

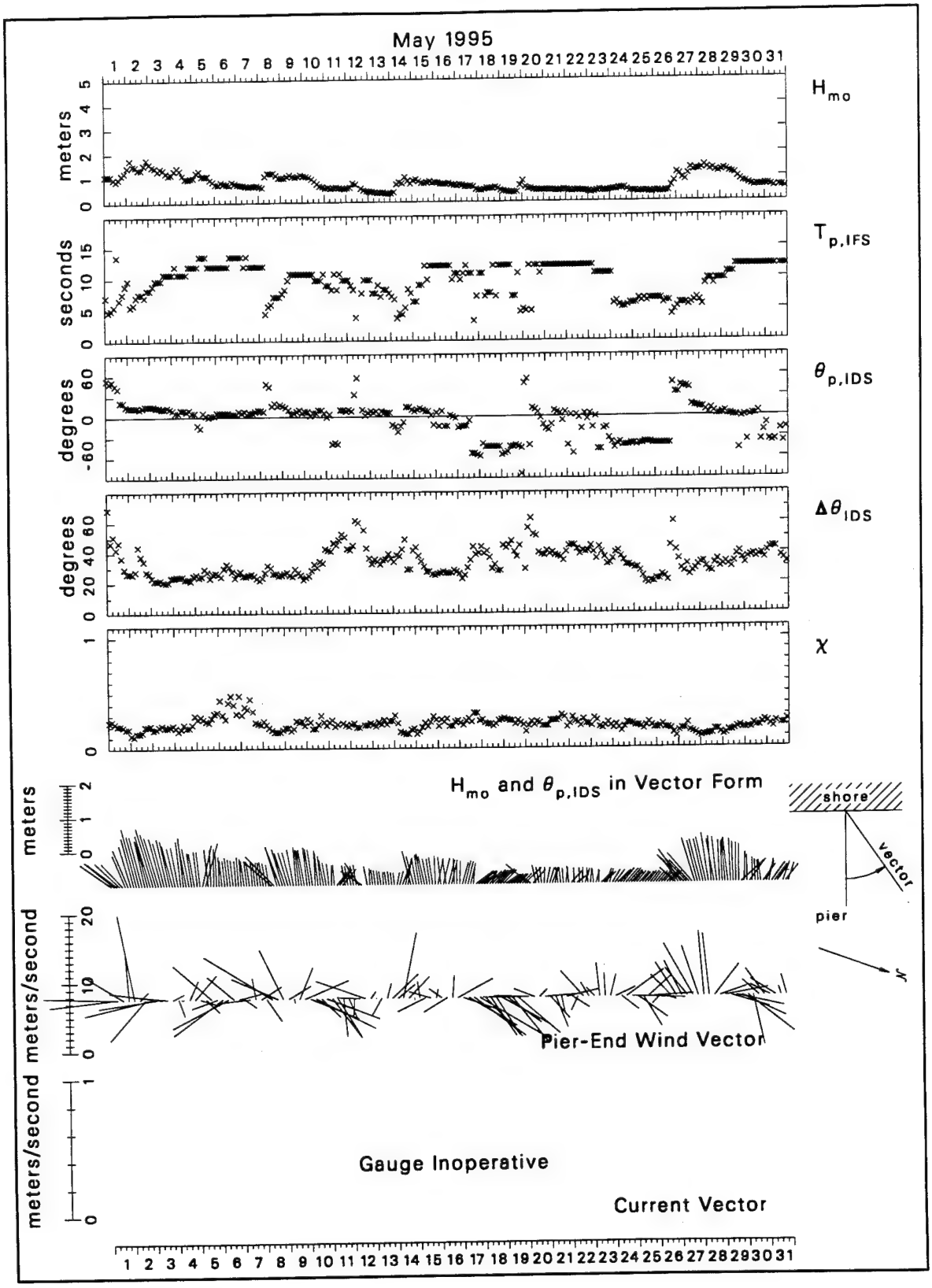

Figure B12. Bulk data for May 1995

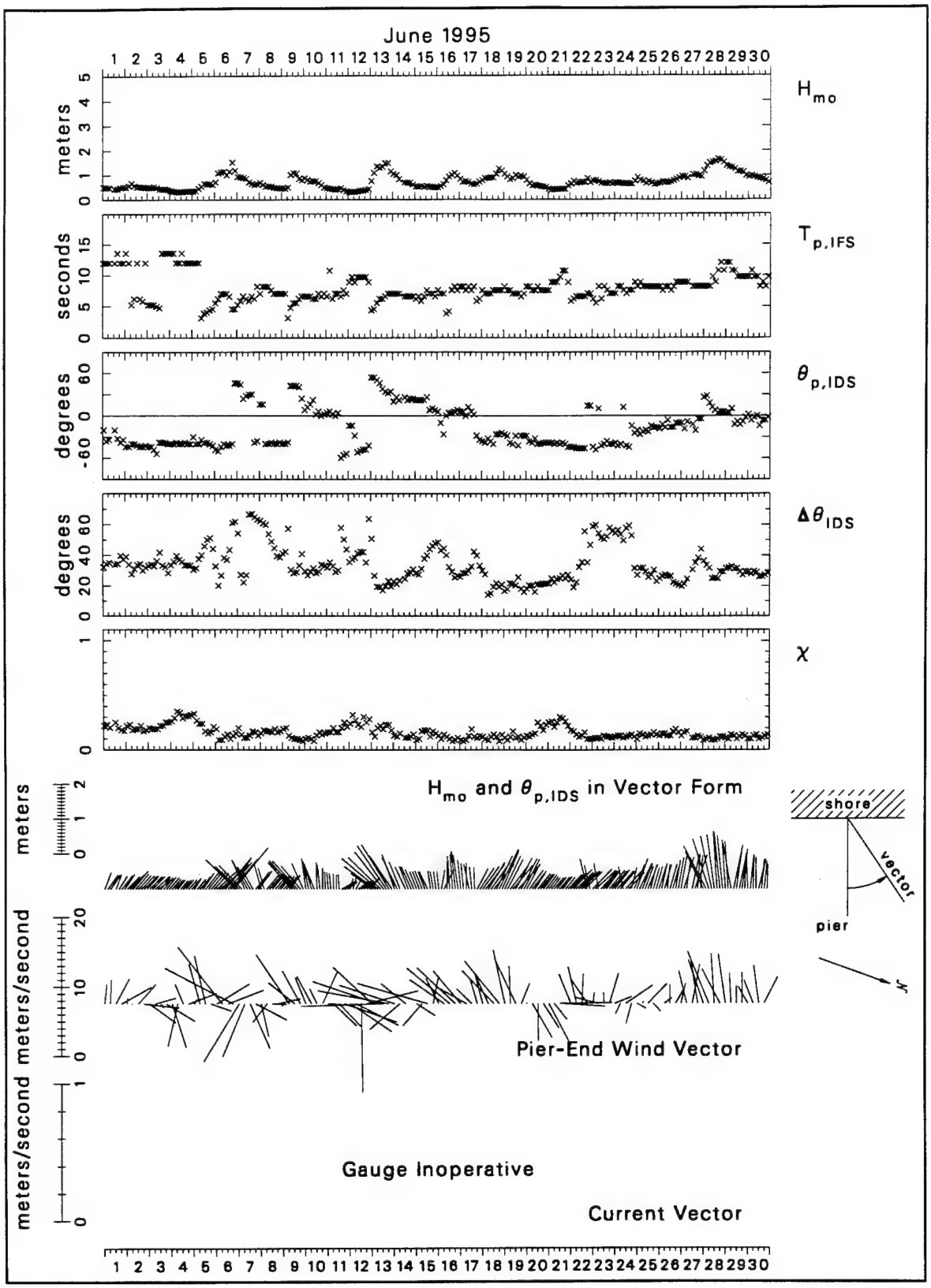

Figure B13. Bulk data for June 1995

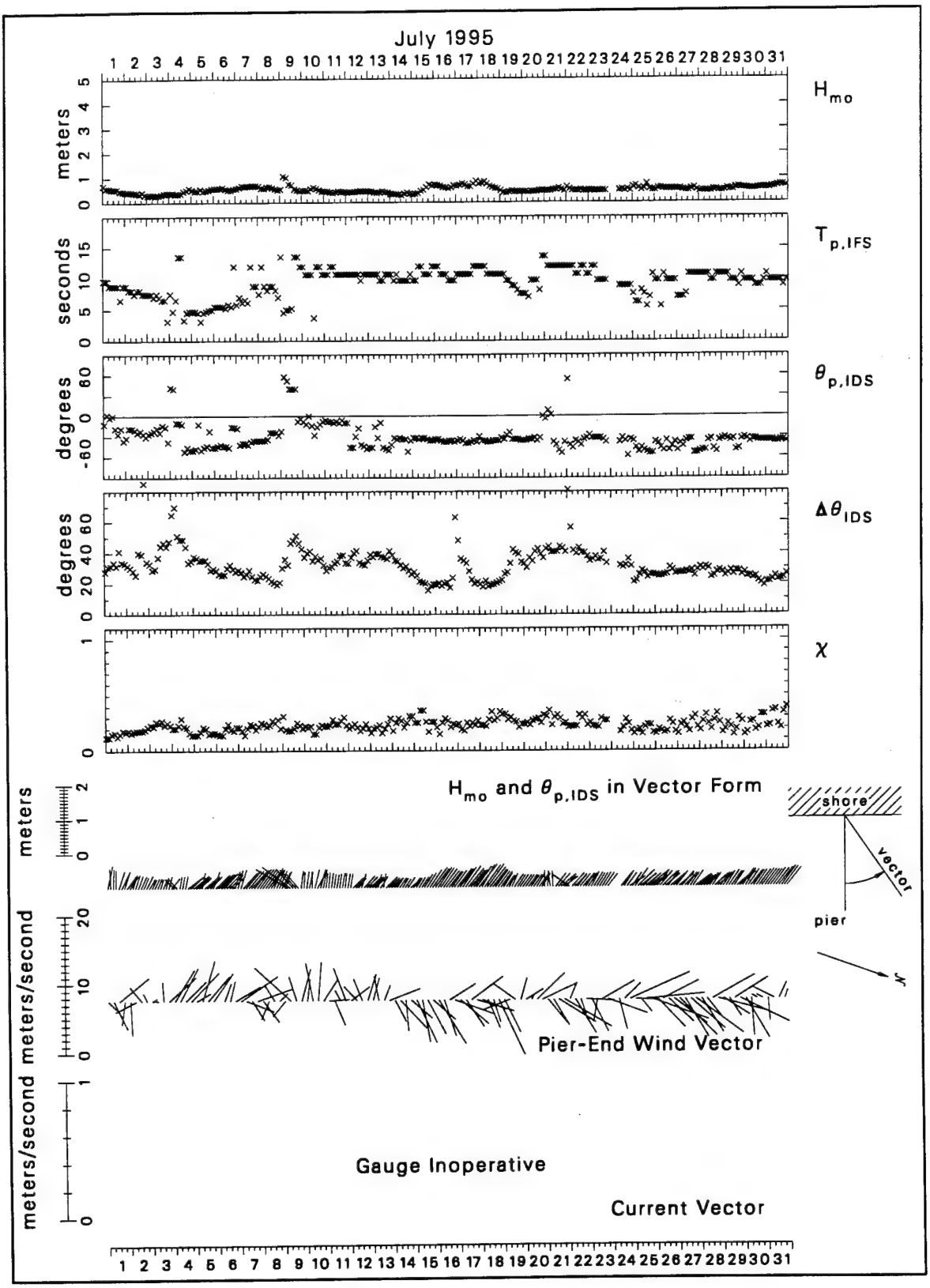

Figure B14. Bulk data for July 1995

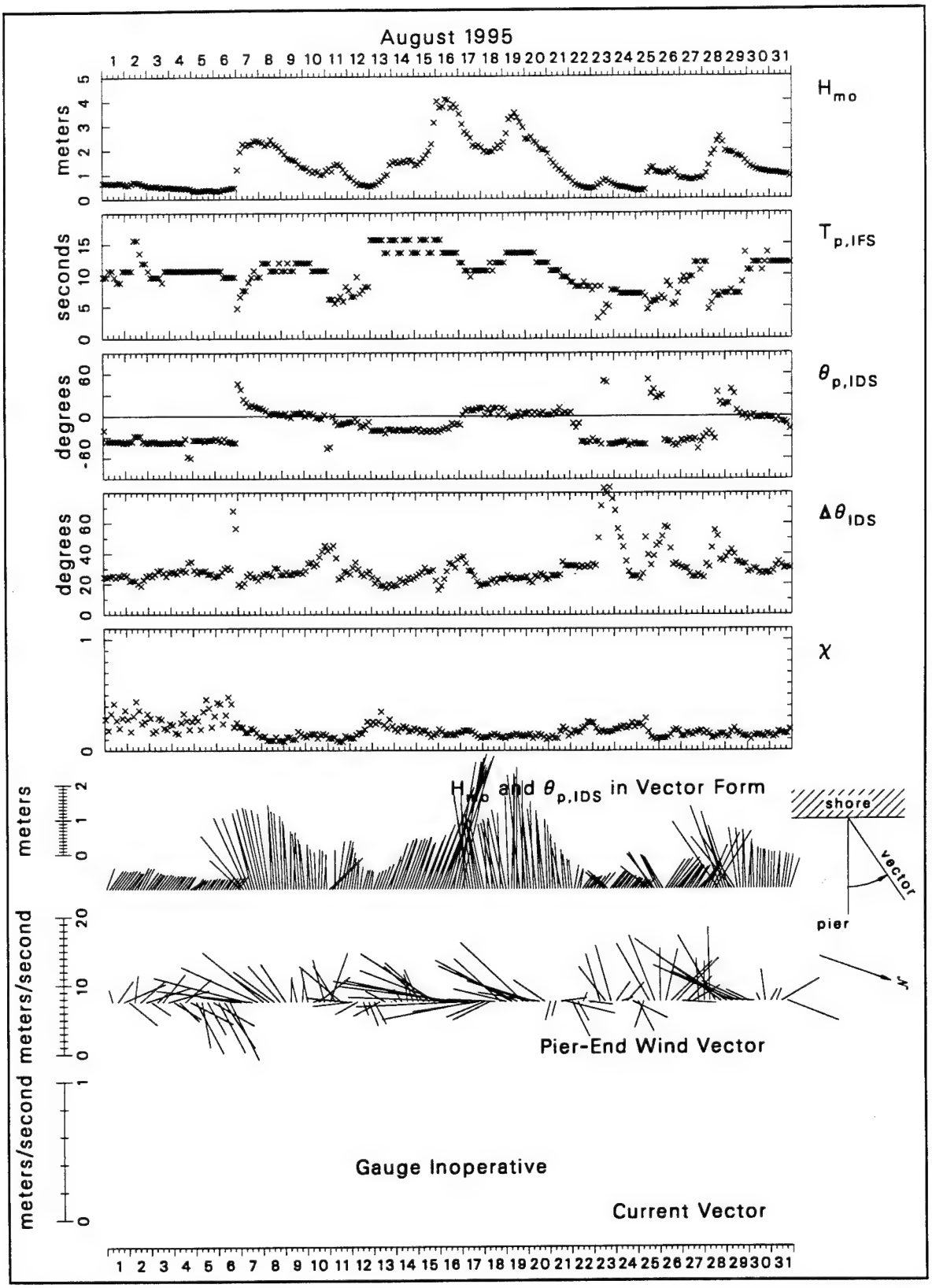

Figure B15. Bulk data for August 1995

Appendix C
Listing of FORTRAN Computer Program

```
      program readascii
c
c  This program has the codes to read FRF 8-m
c  array directional spectral ASCII output files.
c  This program simply reads the ASCII file and
c  writes an ASCII file as a test of the code.
c  You will have to tune the I/O statements to
c  your own system...
c
c  Variable names, units and meanings are:
c
c=====================================================================
c
c       datetime...[character*10] Date and Eastern Standard Time of
c                  beginning of data collection in the order year,
c                  month, day, hour, minute and in the form
c                  yymmddhhmm (2-digit year, no blanks in any field)
c            Hmo...[m] Energy-based characteristic wave height =
c                  4*sigma, where sigma^2 is the variance of sea
c                  surface displacement = volume under frequency-
c                  direction (f-d) spectrum
c             fp...[Hz] Frequency at the peak of the frequency spectrum
c            thp...[deg] Direction at the peak of the directional
c                  distribution at f=fp
c
c          ifimle...Algorithm flag: [1]=IMLE estimate, [0]=MLE estimate
c
c           istot...[sec] Length of time series processed
c            sfrq...[Hz] Data sampling frequency in time series
c
c         ifwindo...Windowing flag: [0]=data segments not windowed,
c                   [1]=data segments windowed (Kaiser-Bessel window)
c         ifdtrnd...Detrending flag: [0]=data segments not detrended,
c                   [1]=data segments detrended (linear trend removed)
c             nfft...Number of data points in a data segment
c            nensb...Number of half-lapped segments analyzed
c            nband...Number of frequency bands averaged for frequency
c                   smoothing
c            idgfr...Degrees of freedom of final frequency spectral
c                   estimates
c
c            nofrq...Number of output frequency bands
c            delfs...[Hz] Width of an output frequency band
```

Figure C1. Listing of FORTRAN Computer Program (Sheet 1 of 4)

```
c          noang...Number of output direction bins (arcs)
c        odelang...[deg] Width of an output direction bin
c
c           dmin...[m] Minimum water depth during time series at
c                  8-m array reference gage 'rname'
c           dbar...[m] Mean water depth during time series at
c                  reference gage
c           dmax...[m] Maximum water depth during time series at
c                  reference gage
c          rname...Reference gage ID (FRF gage name - get help if
c                  you need to know which 8-m array gage it was)
c
c            s9b...[m/sec] Mean wind speed at pier end anemometer
c                  (19.5 m above mean sea level) during time series
c            s9s...[m/sec] Standard deviation of wind speed at pier
c                  end anemometer
c            s9m...[m/sec] Maximum wind speed at pier end anemometer
c            d9b...[deg] Vector averaged mean wind direction at pier
c                  end anemometer - direction from which wind blows
c                  in wave direction coordinates (degrees counter-
c                  clockwise from shore normal)
c            d9s...[deg] Measure of variability of wind direction at pier
c                  end anemometer = arctangent[(standard deviation of
c                  cross-mean-streamline wind speed)/(mean wind speed)]
c
c            s8b...   These are the same as s9b, s9s, s9m, d9b,
c            s8s...      and d9s, except they are from the secondary
c            s8m...        anemometer at the seaward end of the pier, less
c            d8b...          than 2 m away from the primary anemometer and at
c            d8s...            19.5 m above mean sea level
c
c         oangle...[deg] Array of wave direction coordinates that
c                  aligns with the f-d spectral array
c
c            nof...(Within a loop) Frequency index
c         of(nof)...[Hz] Frequency
c        osf(nof)...[m^2/Hz] Frequency spectral density at frequency
c                  of(nof)
c      ogpat(nof)...[character*16] Encoded list of gages used to compute
c                  directional distribution of energy at this frequency
c      itero(nof)...Number of IMLE iterations used to compute directional
c                  distribution of energy at this frequency
c   ospc(nof,noa)...[1/deg] Normalized frequency-direction spectral den-
c                  sity at frequency of(nof) and direction oangle(noa).
c                  Dimensional frequency-direction spectrum spc(nof,noa)
c                  [in m^2/(Hz deg)] is found from:
c
c                         spc(nof,noa) = osf(nof)*ospc(nof,noa)
c
c=======================================================================
c
c  links:  none
c
      character*4                rname
      character*10              datetime
      character*16             ogpat(29)
      character*16                infile,        outfile
      dimension                   of(29),        osf(29),      itero(29)
      dimension               oangle(181),   ospc(29,181)
c
c  ask user for input and output file names
c
      write(*,'(2x,''Enter input file name...: '')')
      read(*,'(a)') infile
      write(*,'(2x,''Enter output file name...: '')')
      read(*,'(a)') outfile
```

Figure C1. (Sheet 2 of 4)

```
c
c  open input file and read data
c
      open(10,file=infile,status='unknown',access='sequential',
     &  form='formatted')
c
      read(10,'(a10,f10.2,f10.5,f10.1,2i10,f10.2,i10)')
     &    datetime,      Hmo,       fp,      thp,
     &      ifimle,    istot,     sfrq,  ifwindo
c
      read(10,'(6i10,f10.5,i10)')
     &       ifdtrnd,       nfft,      nensb,      nband,
     &         idgfr,      nofrq,      delfs,      noang
c
      read(10,'(4f10.2,6x,a4,3f10.2)')
     &       odelang,       dmin,       dbar,       dmax,
     &         rname,        s9b,        s9s,        s9m
c
      read(10,'(2f10.1,3f10.2,2f10.1)')
     &           d9b,        d9s,        s8b,        s8s,
     &           s8m,        d8b,        d8s
c
      read(10,'(10f8.1)') (oangle(noa),noa=1,noang)
c
      do 700 nof=1,nofrq
c
        read(10,'(i10,f10.5,e20.7,4x,a16,i10)')
     &          nof,    of(nof),   osf(nof), ogpat(nof),
     &    itero(nof)
c
        read(10,'(8f10.7)') (ospc(nof,noa),noa=1,noang)
c
700   continue
c
      close(10)
c
c  open output file and write variables just read
c
      open(11,file=outfile,status='unknown',access='sequential',
     &  form='formatted')
c
      write(11,'(a10,f10.2,f10.5,f10.1,2i10,f10.2,i10)')
     &    datetime,      Hmo,       fp,      thp,
     &      ifimle,    istot,     sfrq,  ifwindo
c
      write(11,'(6i10,f10.5,i10)')
     &       ifdtrnd,       nfft,      nensb,      nband,
     &         idgfr,      nofrq,      delfs,      noang
c
      write(11,'(4f10.2,6x,a4,3f10.2)')
     &       odelang,       dmin,       dbar,       dmax,
     &         rname,        s9b,        s9s,        s9m
c
      write(11,'(2f10.1,3f10.2,2f10.1)')
     &           d9b,        d9s,        s8b,        s8s,
     &           s8m,        d8b,        d8s
c
      write(11,'(10f8.1)') (oangle(noa),noa=1,noang)
c
      do 800 nof=1,nofrq
c
        write(11,'(i10,f10.5,e20.7,4x,a16,i10)')
     &          nof,    of(nof),   osf(nof), ogpat(nof),
     &    itero(nof)
c
        write(11,'(8f10.7)') (ospc(nof,noa),noa=1,noang)
```

Figure C1. (Sheet 3 of 4)

```
c
800   continue
c
      close(11)
c
      end
```

Figure C1. (Sheet 4 of 4)

Appendix D
Listing of Sample Data File

```
9410220400       0.58    0.10303       -4.0          1        8192        2.00          1
         0       2048         15         10        160          29     0.00977         91
      2.00       8.01       8.20       8.44        191        1.35        0.44       2.40
     141.6       18.8       0.79       0.77       2.30       157.4        18.7
     -90.0     -88.0     -86.0     -84.0     -82.0     -80.0     -78.0     -76.0     -74.0     -72.0
     -70.0     -68.0     -66.0     -64.0     -62.0     -60.0     -58.0     -56.0     -54.0     -52.0
     -50.0     -48.0     -46.0     -44.0     -42.0     -40.0     -38.0     -36.0     -34.0     -32.0
     -30.0     -28.0     -26.0     -24.0     -22.0     -20.0     -18.0     -16.0     -14.0     -12.0
     -10.0      -8.0      -6.0      -4.0      -2.0       0.0       2.0       4.0       6.0       8.0
      10.0      12.0      14.0      16.0      18.0      20.0      22.0      24.0      26.0      28.0
      30.0      32.0      34.0      36.0      38.0      40.0      42.0      44.0      46.0      48.0
      50.0      52.0      54.0      56.0      58.0      60.0      62.0      64.0      66.0      68.0
      70.0      72.0      74.0      76.0      78.0      80.0      82.0      84.0      86.0      88.0
      90.0
         1    0.04443       0.5463568E-02     9712456                    6
 0.0055868 0.0055070 0.0054705 0.0054540 0.0054357 0.0054286 0.0053809 0.0052862
 0.0051177 0.0049301 0.0047565 0.0046788 0.0048211 0.0052575 0.0057248 0.0063047
 0.0068404 0.0073767 0.0078129 0.0079995 0.0081216 0.0080223 0.0078063 0.0074288
 0.0070879 0.0067085 0.0064179 0.0062637 0.0061670 0.0060964 0.0060822 0.0060562
 0.0060047 0.0059721 0.0059568 0.0059489 0.0059734 0.0060700 0.0062326 0.0064898
 0.0068764 0.0073621 0.0078914 0.0083845 0.0087497 0.0089141 0.0088374 0.0085266
 0.0080323 0.0074317 0.0068078 0.0062301 0.0057473 0.0053595 0.0050514 0.0048133
 0.0046067 0.0044271 0.0042557 0.0041047 0.0039682 0.0038265 0.0037048 0.0036099
 0.0035546 0.0035591 0.0035923 0.0037186 0.0038828 0.0041260 0.0043783 0.0046098
 0.0047793 0.0049231 0.0049368 0.0048877 0.0047128 0.0044734 0.0042182 0.0039333
 0.0036785 0.0035234 0.0034921 0.0035448 0.0036556 0.0038076 0.0039713 0.0041074
 0.0042420 0.0043708 0.0044720
         2    0.05420       0.1074547E-01     98712456                   12
 0.0048766 0.0046074 0.0042590 0.0038531 0.0034456 0.0030100 0.0025853 0.0022161
 0.0019106 0.0017847 0.0017780 0.0019646 0.0023227 0.0027734 0.0032595 0.0037049
 0.0040812 0.0043365 0.0044677 0.0044893 0.0044650 0.0044358 0.0044030 0.0045141
 0.0048571 0.0054411 0.0062887 0.0073380 0.0085078 0.0097585 0.0109535 0.0120963
 0.0129088 0.0138162 0.0147686 0.0157885 0.0168584 0.0178052 0.0180687 0.0176905
 0.0167395 0.0154586 0.0140777 0.0128825 0.0119563 0.0112558 0.0106206 0.0099107
 0.0090452 0.0080464 0.0070067 0.0060037 0.0051337 0.0044360 0.0039152 0.0035672
 0.0033118 0.0031228 0.0029584 0.0027951 0.0026244 0.0024347 0.0022517 0.0020789
 0.0019433 0.0018588 0.0018413 0.0019042 0.0020476 0.0023017 0.0026088 0.0029179
 0.0031560 0.0032857 0.0031860 0.0029241 0.0025174 0.0020449 0.0016406 0.0013495
 0.0011736 0.0011106 0.0011476 0.0012475 0.0013791 0.0015165 0.0016654 0.0017962
 0.0019265 0.0020504 0.0021489
         3    0.06396       0.8427116E-01     98712456                   30
 0.0017183 0.0016916 0.0015901 0.0014145 0.0011873 0.0009367 0.0006973 0.0004975
 0.0003539 0.0002692 0.0002386 0.0002630 0.0003547 0.0005424 0.0008414 0.0012411
 0.0016684 0.0020259 0.0022440 0.0022940 0.0022128 0.0020549 0.0018899 0.0017930
 0.0018562 0.0021707 0.0028853 0.0041743 0.0060782 0.0082553 0.0100080 0.0107209
 0.0103104 0.0095512 0.0092336 0.0102511 0.0136383 0.0206927 0.0302763 0.0368048
 0.0344418 0.0257659 0.0173302 0.0123064 0.0104589 0.0109448 0.0130928 0.0159692
```

Figure D1. Listing of sample data file (Sheet 1 of 7)

```
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0.0015191 0.0014323 0.0011710 0.0008324 0.0005273 0.0003193 0.0002051 0.0001549
0.0001434 0.0001585 0.0001959 0.0002536 0.0003291 0.0004169 0.0005118 0.0006052
0.0006920 0.0007665 0.0008127
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0.0002103 0.0001507 0.0001140 0.0000971 0.0000979 0.0001182 0.0001645 0.0002475
0.0003770 0.0005558 0.0007744 0.0010116 0.0012410 0.0014388 0.0015930 0.0017103
0.0018200 0.0019833 0.0023075 0.0029813 0.0043161 0.0066820 0.0101080 0.0135838
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0.0006046 0.0006425 0.0007542 0.0009312 0.0011482 0.0013530 0.0014709 0.0014367
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0.0001337 0.0001571 0.0001923 0.0002368 0.0002875 0.0003406 0.0003924 0.0004395
0.0004791 0.0005091 0.0005249
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0.0007400 0.0008221 0.0008959
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0.0005284 0.0005894 0.0006382
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0.0003073 0.0003097 0.0003123
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Figure D1. (Sheet 2 of 7)

```
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0.0002511 0.0002546 0.0002569
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0.0002219 0.0002253 0.0002291 0.0002338 0.0002397 0.0002478 0.0002596 0.0002775
0.0003051 0.0003480 0.0004146 0.0005163 0.0006685 0.0008897 0.0011987 0.0016098
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0.0003081 0.0003087 0.0003096
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0.0004103 0.0004220 0.0004296
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0.0003785 0.0003676 0.0003581 0.0003500 0.0003430 0.0003372 0.0003326 0.0003290
0.0003266 0.0003254 0.0003252
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```

Figure D1. (Sheet 3 of 7)

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0.0038364 0.0034698 0.0031867 0.0030311 0.0030303 0.0032163 0.0036435 0.0044044
0.0056368 0.0074951 0.0100224 0.0128839 0.0151741 0.0158279 0.0145665 0.0121700
0.0096813 0.0076975 0.0063481 0.0055538 0.0052069 0.0052395 0.0056384 0.0064475
0.0077703 0.0097729 0.0126647 0.0166047 0.0214498 0.0263576 0.0296818 0.0298691
0.0268594 0.0221277 0.0173108 0.0132741 0.0101852 0.0079005 0.0062148 0.0049542
0.0039923 0.0032430 0.0026495 0.0021742 0.0017916 0.0014834 0.0012358 0.0010373
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0.0003425 0.0003190 0.0002998 0.0002841 0.0002713 0.0002610 0.0002530 0.0002467
0.0002422 0.0002393 0.0002379
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0.0002709 0.0002679 0.0002668
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0.0004079 0.0003592 0.0003230 0.0002960 0.0002757 0.0002605 0.0002493 0.0002413
0.0002361 0.0002333 0.0002327
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0.0003835 0.0003820 0.0003814
      18   0.21045       0.7334688E-01    12345                   21
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0.0007282 0.0008001 0.0008706 0.0009380 0.0010019 0.0010639 0.0011273 0.0011956
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0.0013117 0.0011805 0.0010654 0.0009798 0.0009298 0.0009181 0.0009467 0.0010185
0.0011370 0.0013025 0.0015050 0.0017150 0.0018821 0.0019542 0.0019120 0.0017850
0.0016297 0.0014957 0.0014123 0.0013940 0.0014517 0.0016028 0.0018804 0.0023463
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0.0572286 0.0567419 0.0494451 0.0385987 0.0275131 0.0183325 0.0117511 0.0074611
0.0048080 0.0031975 0.0022145 0.0016020 0.0012095 0.0009502 0.0007736 0.0006499
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Figure D1. (Sheet 4 of 7)

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0.0006324 0.0006906 0.0007547 0.0008220 0.0008883 0.0009487 0.0009988 0.0010362
0.0010615 0.0010784 0.0010931 0.0011123 0.0011426 0.0011890 0.0012539 0.0013360
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0.0380659 0.0351937 0.0329122 0.0317928 0.0310662 0.0293599 0.0257116 0.0204638
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0.0011317 0.0009428 0.0008084 0.0007113 0.0006405 0.0005888 0.0005515 0.0005256
0.0005090 0.0005006 0.0004990
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0.0005708 0.0005945 0.0006255 0.0006652 0.0007150 0.0007756 0.0008469 0.0009271
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Figure D1. (Sheet 5 of 7)

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Figure D1. (Sheet 6 of 7)

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```

Figure D1. (Sheet 7 of 7)

Appendix E
Notation

Text	Appendix C	
	datetime	Ten-character string that contains date and time
	dbar	Mean water depth
	dmax	Maximum segment-averaged water depth in a collection
	dmin	Minimum segment-averaged water depth in a collection
df	delfs	Frequency increment
	d8b	Vector-averaged mean wind direction at secondary pier-end anemometer
	d8s	Measure of variability of wind direction at secondary pier-end anemometer
	d9b	Vector-averaged mean wind direction at primary pier-end anemometer
	d9s	Measure of variability of wind direction at primary pier-end anemometer
$d\theta$	odelang	Direction increment
$D(f_n, \theta_m)$		Directional distribution function at frequency f_n and direction θ_m
E_i		Incident wave energy
E_r		Reflected wave energy

Text	Appendix C	
f		Frequency
f_n		n^{th} frequency of a set of N discrete frequencies
f_p		Peak frequency
	fp	Frequency at peak of frequency spectrum
$f_{p,FD}$		Frequency at peak of frequency-direction spectrum
$f_{p,IFS}$		Frequency at peak of integrated frequency spectrum
g		Gravitational acceleration
hhmm		Mnemonic for time of day
H_{mo}	Hmo	Characteristic wave height
$H_{mo,i}$		Characteristic incident wave height
$H_{mo,r}$		Characteristic reflected wave height
	idgfr	Degrees of freedom in cross-spectral estimation
	ifdtrnd	Flag indicating whether or not data have been detrended
	ifimle	Flag indicating if maximum likelihood or iterative maximum likelihood estimation is used
	ifwindo	Flag indicating whether or not data segments have been windowed
	istot	Total number of seconds duration of a time series
	itero(nof)	Number of iterative maximum likelihood iterations used to compute directional distribution at frequency of(nof)
$I(f_n, \theta_j)$		Cumulative distribution function at frequency f_n and direction θ_j

Text	Appendix C	
j		Index associated with discrete direction
m	noa	Index associated with discrete direction
M	noang	Integer number of discrete directions
n	nof	Index associated with discrete frequency
	nband	Number of frequency bands averaged in spectral estimation
	nensb	Number of segments into which a data record is divided during spectral estimation
	nfft	Number of data points in a data segment
N	nofrq	Integer number of discrete frequencies
	oangle(noa)	Element noa of an array that represents direction coordinates
	of(nof)	Element nof of an array that represents frequency
	ogpat(nof)	Element nof of an array of 16-character strings that represent the working gauge pattern
	osf(nof)	Element nof of an array that represents the frequency spectrum
	ospc(nof,noa)	Array element representing the directional distribution function at frequency of(nof) and direction oangle(noa)
	rname	Four-character string denoting reference gauge
	sfrq	Sampling frequency
	s8b	Mean wind speed at secondary pier-end anemometer
	s8m	Maximum wind speed at secondary pier-end anemometer
	s8s	Standard deviation of wind speed at secondary pier-end anemometer
	s9b	Mean wind speed at primary pier-end anemometer

Text	Appendix C	
	s9m	Maximum wind speed at primary pier-end anemometer
	s9s	Standard deviation of wind speed at primary pier-end anemometer
$S(f)$		Frequency spectrum
$S(f_n)$		Integrated frequency spectral density at frequency f_n
$S(\theta_m)$		Integrated direction spectral density at direction θ_m
$S(f_n, \theta_m)$		Frequency-direction spectral density at frequency f_n and direction θ_m
$S_{min}(f_n)$		Minimum of $S(f_n, \theta_m)$ at frequency f_n
	thp	Peak direction of directional distribution at frequency fp
T_p		Spectral peak period
$T_{p,FD}$		Spectral peak period from the frequency at which the frequency-direction spectrum is a maximum
$T_{p,IFS}$		Peak period from the integrated frequency spectrum
w_m		m^{th} of a set of M weights used in the computation of incident and reflected energy
yymmdd		Mnemonic for date
$\Delta\theta$		Directional spread parameter
$\Delta\theta_n$		Directional spread parameter of a 180-deg directional distribution at frequency f_n
$\Delta\theta_{FDP}$		Directional spread parameter of the directional distribution at the peak frequency of a frequency-direction spectrum

Text	Appendix C	
$\Delta\theta_{IDS}$		Directional spread parameter of integrated direction spectrum
$\Delta\theta_{SW}$		Spectrally weighted directional spread parameter
θ_j		j^{th} direction of a set of M discrete directions
θ_m		m^{th} direction of a set of M discrete directions
θ_p		Peak direction
$\theta_{p,n}$		Direction of peak in directional distribution function at frequency f_n
$\theta_{p,FD}$		Direction at peak of frequency-direction spectrum
$\theta_{p,IDS}$		Direction at peak of integrated direction spectrum
$\theta_{p,SW}$		Spectrally weighted peak direction
$\theta_{25\%,n}$		Direction at which cumulative distribution function equals 0.25 at frequency f_n
$\theta_{50\%,n}$		Direction at which cumulative distribution function equals 0.50 at frequency f_n
$\theta_{75\%,n}$		Direction at which cumulative distribution function equals 0.75 at frequency f_n
ρ		Water density
χ		Reflection coefficient

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13. ABSTRACT *(Maximum 200 words)*

This report indexes parameters of and describes a means of access to 3,581 wind wave frequency-direction spectral observations obtained at the U.S. Army Engineer Waterways Experiment Station Field Research Facility from June 1994 to August 1995, a period that encompasses the DUCK94 Experiment. An iterative maximum likelihood algorithm is used to estimate directional spectra using signals from a spatial array of 16 bottom-mounted pressure sensors in about 8 m of water, approximately 900 m offshore. Parameters include characteristic wave height, spectral peak frequency and corresponding peak period, peak wave direction, directional spread, and reflection coefficient. Time series graphs of these parameters, as well as local winds and currents, illustrate the salient climatology.

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